



A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY
(INCORPORATED).

VOL. XIX.

CHICAGO, ILLINOIS, OCTOBER 15, 1900.

No. 4.

ONE DOLLAR PER ANNUM.
SINGLE COPY, TEN CENTS.

INTERCOLONIAL RAILWAY ELEVATOR AT ST. JOHN, N. B.

The movement at Montreal a year or two ago to have the Canadian government build and operate the grain elevators and public warehouses at Montreal instead of turning the sites over to private individuals for exploitation was a failure, so far as that city is concerned. The government did, however, erect a public elevator at St. John, N. B., the eastern terminus of the Intercolonial Railway, the property of the Canadian government, that house having been completed in February last by J. A. Jamieson of Montreal, who was the architect, as well as the building contractor. The elevator was most carefully planned—generally and in detail—and before entering upon the work of construction the contractor erected upon the grounds a complete mill for dressing and working under his personal supervision the timbers and lumber used in the building, so that it was all prepared in such a manner that the entire building was put up by the carpenters with practically no other tools than hammers to drive nails.

The elevator has a storage capacity of 600,000 bushels. Its size on the ground is 96 feet by 137 feet 6 inches, and its height 158 feet. It is equipped with six stands of elevators, having an elevating capacity each of 10,000 bushels per hour, and other modern equipments in proportion for receiving and loading grain. So far as known, the belt conveyor from this house to the deep-water dock is the longest straight run of conveyor on the continent, being over 3,520 feet long and weighing nine tons. It has a carrying capacity of 17,000 bushels per hour.

The foundations of the elevator consist of 96 concrete piers, which rest on bed-rock. All around the building a concrete retaining wall was built between the piers.

The first story consists of the

heavy timber frame, twenty-four feet high. It is called the "working floor." The timber used is all of prime quality Georgia pine, planed on all four sides. Through this story are two railway tracks, for unloading grain. The automatic power shovels, the car puller for moving the cars, and all mech-

anisms for the general working of the building are located on this floor.

From the top of the main frame, extending to a height of 73 feet, are the storage bins, 83 in number, ranging in capacity from 2,000 to 8,000 bushels each. All these bins have hopper bottoms.

Above the bins, on the first floor of the cupola, or the "distributing floor," Mr. Jamieson's special system of distributing spouts for running the grain from the different scale hoppers to the bins is located. It is under the direct control of the weighman and operated by him without leaving the scales.

Above the distributing floor is the "scale floor," on which are located six 1,200-bushel hopper scales, and on the floor above this are the garner, of which there are six, holding 1,400 bushels each.

The top floor contains the heads of all the elevator legs and the machinery for driving them. At the discharge point on each of the elevator heads is located a switch valve, which can be operated to discharge the grain into either of two garner, from each elevator leg, the switch valves being controlled through a steel cable and levers by the weighman on the scale floor.

When grain is wanted for shipment it is drawn from the bottom of the storage bins and run through spouts to the sinks and boots and is again elevated by the leg, weighed and spouted to the shipping bins. The shipping bins are situated over the belt conveyor, which carries the grain to the wharf and discharges it into the holds of ocean steamers. This conveyor is an endless rubber belt, three feet wide, running on turned clear cedar rollers, with steel shaft through each, the grain being loaded on the belt in a continuous stream through a concentrating hopper. The belt may be loaded to within an inch of the edge without danger of spilling. When the grain reaches the part of the conveyor house above the steamship the grain is taken off the belt by means



THE NEW INTERCOLONIAL RAILWAY ELEVATOR AT ST. JOHN, NEW BRUNSWICK.

of an automatic traveling tripper at any desired point to throw it to any of the different shipping spouts to the steamer's hold. This belt runs in a gallery, which is carried high up on bents across Mill Street, over the pond and the railway tracks and down to the deep-water wharf, where the height is 50 feet above the wharf.

All the lumber used in the construction of the spouting, scale hoppers, garners and leg housing is of clear pine and spruce, kiln dried, and planed, the finishing of this work being equal to the best flouring mill practice, and every part is thoroughly dust-tight. All the garners, scale hoppers and spouting throughout are lined with sheet steel.

The main driving shaft is located in the basement, and all the bearings are set on concrete piers, resting on the rock. From the main line shaft in the basement all the different parts of the machinery in the elevator are driven by rope transmission, each individual elevator leg being driven from grooved pulleys on the main line shaft, direct to the head of each elevator, at the top of the building. Each piece of machinery is connected to the drive by a friction clutch. All the rope transmissions are of the continuous wind system, and are provided with tension carriages for automatically taking up the slack rope. Above the bins there are no shafts over seven feet in length, and none of them have more than two bearings.

All bearings, whether of shafts or conveyor rollers, are of the ball and socket type and ring oiling, with the length of the bearing four times the diameter of the shaft, dust proof, and run thirty days without oiling. The shovel shaft and car puller also are driven by direct rope transmission. The rope transmission for driving the shipping belt conveyor is one of the longest on the continent, the distance between the main shaft and the furthest driven pulley being 1,400 feet, and between the main shaft and the conveyor it is carried underneath the railway tracks in the basement, horizontally, for a distance of 50 feet, then vertically for 25 feet, turning off at right angles from the driving shaft. Over three miles of 1¼-inch rope are used in this drive.

The power house is of brick, 44x45 feet 6 inches in size, with a brick wall between the boiler and engine rooms. The boiler room has a concrete floor with granolithic finish, while the engine room has a polished birch floor, cement finished walls and stamped-steel ceiling, all painted in harmonizing tints. There are two 200-horse power boilers and a compound Corliss Engine of 400-horse power, with steam condenser, etc. In this room there are also a fire pump of 500 gallons' capacity, attached to a standpipe, running to the top of the elevator, with hose and nozzle connections and electric signals on every floor, and the electric light engine and dynamo.

The elevator is equipped with exhaust fans and a complete dust collecting and sweeper plant, all dust being taken from the building and separated through a special separator on top of the power house and fed into the furnaces. There are also speaking tubes, electric bells and signals, connecting with all parts of the building and conveyor gallery, and such other facilities which go to make up a complete equipment. In fact, it is generally conceded by the experts who have examined this elevator, that, in general design, facilities for handling grain economically, as well as in workmanship, machinery, etc., this building is quite equal to any on the continent. Every part of the machinery, power plant, belting and all other equipment was manufactured in Canada.

ANOTHER ELEVATOR AT BUFFALO.

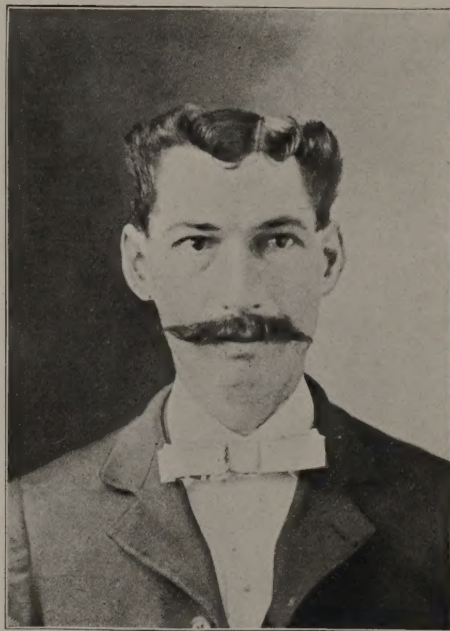
Churchill & Co., grain brokers at Buffalo, are about to build a 500,000-bushel transfer elevator at Buffalo, adjoining the Lake Shore tracks at Elk Street and Abbott Road. It will be of steel and so constructed that should enlargement be necessary at any time, the additional space may be had merely by raising the roof as much as may be necessary and increasing the depth of bins. A

petition has been made to the city council for permission to lay the necessary tracks to the site of the proposed elevator.

WALTER R. DAVIS.

Walter R. Davis, hay and grain inspector of Savannah, Ga., was one of the interested attendants of the late convention of the National Hay Association. Mr. Davis was there to meet personally many of the men who ship into his market and to get into closer touch with the trade, with a view to enlarging, if possible, his own knowledge as chief inspector and also to direct attention to Savannah as a market.

Mr. Davis, who has been very successful as inspector, is a native of the South and, of course, knows that part of the country and its needs thoroughly. Born in Hampton County, South Carolina, the son of a well-to-do farmer, he began to deal in hay and grain almost as soon as he knew what those products were. At seventeen years of age he went to the Eastman National Business College at Poughkeepsie, N. Y., for a year's study of business methods and accounts and then returned to



WALTER R. DAVIS.

Savannah. His first position after his return was that of purser on one of the boats of the Savannah-Augusta line of steamers. He remained on the river for three years, and during that time secured licenses as master, mate and pilot. His health breaking down, he returned to the country to recuperate and became a farmer. When his health had been reestablished, he returned to Savannah and took a position as deputy inspector under the late W. B. Farr. He acted in that capacity for some eighteen months, and upon the death of Mr. Farr was appointed to fill out his unexpired term, some four months. At the regular election following he was chosen by the Savannah Board of Trade as Mr. Farr's successor.

Mr. Davis' administration of the office has been eminently satisfactory, and thus far not one complaint of his inspections or rulings has been filed. And Savannah is no mean market. On the contrary, it does quite a lively business in both hay and grain, considering the size of the city and its location, and this trade is growing steadily.

The elevators at Vincennes, Ind., are consigning their cobs to Henderson, Ky., where they are ground into cob meal. They are worth in Vincennes \$5 per car.

Some farmers are experimenting this year with corn in the ordinary thrashing machine. The stalks and cobs are pretty well pounded up but the corn is said to come out well shelled. It is thought that by a little adjustment the thrasher can be made to do good service with corn.

THE QUOTATIONS CONTRACT.

The Chicago Board of Trade has voted to accept the proposition of the newly organized Exchange Telegraph Company to supply the markets with Board of Trade official quotations. This vote of the members authorizes the president and secretary of the Board to sign a contract with the Telegraph Company giving the latter the exclusive use of the exchange hall for twenty-five years and other valuable privileges. The Telegraph Company is to pay an annual rental of \$10,000 a year for its space on the exchange floor and also \$2 per month for each subscriber furnished with continuous quotations outside of Chicago and 75 cents per month for periodical quotations. The company also agrees not to furnish quotations to bucket shops. The Board agrees to give the Telegraph Company all its message business to points within its system for the time agreed upon, provided the rate shall not exceed the rates charged for like messages by other companies.

The Exchange Telegraph Company will be a Delaware company capitalized at \$4,000,000. It contracts to provide for the completion of a comprehensive telegraph system connecting the important exchange centers on or before December 31, 1904. The entire system as contemplated will comprehend about 5,000 miles of telegraph line, and will extend to the following cities: Peoria, Indianapolis, St. Louis, Kansas City, Omaha, Sioux City, Minneapolis, Duluth, Milwaukee, Toledo, Cincinnati, Detroit, Philadelphia, Baltimore, Boston, Buffalo and New York.

This action of the Board is expected to sound the death knell of the bucket shop. For it is the intention that as much of the stock of the company as possible shall be sold to members of the Board of Trade, in the determination that a close, indissoluble alliance shall exist between the telegraph system and the Board, so that it will be impossible for quotations to be obtained for illicit uses.

THE LLOYD J. SMITH CASE.

Lloyd J. Smith, former manager of the Chicago Elevator Company, was indicted at Chicago by the July grand jury for shipping grain from the elevator of which he was manager without canceling the warehouse receipts against it. He was placed under bonds of \$15,000 to answer to six separate charges, each of which involves a possible penalty of from one to ten years in the penitentiary. The fact that Mr. Smith is the nominee of a great political party for drainage trustee, and that this is the first hearing under the present statute, nearly thirty years old, lent additional interest to his trial. The total amount of grain which it is alleged Smith shipped without cancellation of warehouse receipts was 800,000 bushels, loans on the warehouse receipts having been made to the amount of \$248,000 by A. O. Slaughter & Co. By the shipment of the grain the collateral was rendered valueless.

The particular indictment on which Mr. Smith was first tried charged him with failure to cancel the receipt for a specific shipment of 21,333 bushels of wheat on January 16, 1900, to I. M. Parr & Co. of Baltimore. The hearing was before Judge Holdom, of the Criminal Court, Chicago.

The prosecution brought witnesses to prove the sale and shipment of the grain in question, and endeavored to prove by a comparison of outstanding warehouse receipts with the receipt register of the elevator that on the morning of January 16 there was a shortage of 25,996 bushels of wheat, this shortage being accounted for in part by the shipment to Parr & Co., which was the basis of the indictment.

The contention of the defense was that the statute did not apply to this case, as the grain shipped was owned by the shipper, the Chicago Elevator Company; that the statute was a dead letter, not having been enforced for 29 years; that the statute described the offense as punishable against the "warehouseman," meaning the owner of the elevator and not its servants, and that the

intent to commit a crime could not be shown. Following this line of defense, ex-Judge Wing, who appeared for Mr. Smith, contended that the transaction was a financial, and not a warehouse deal, between the elevator company and A. O. Slaughter & Co., and that Russell Sage and Jay Gould, the real owners of the elevator, should pay Slaughter & Co. the balance due them, rather than that the vengeance of the law should be wreaked on a mere employe of the company. The legal fight throughout the trial was sharp and bitter, and was centered on the point of getting before the jury and into the record evidence supporting the above contentions that the Chicago Elevator Company, and not Mr. Smith, was the real party in interest. The rulings of the court were almost without exception favorable to the prosecution, however, and effectually blocked the line of defense chosen by ex-Judge Wing. The defendant testified in his own behalf, but was not allowed to say anything materially strengthening his case.

The jury retired at 2 o'clock, Thursday afternoon, September 27, and deliberated and balloted until midnight of the following Saturday. One juror, Fred S. Ettinger, a theological student, held out for acquittal. The jury reported their disagreement and were discharged by the court. A new trial has been set for October 15.

The case against Lloyd J. Smith, before the directors of the Chicago Board of Trade, will probably be postponed until his trial in the Criminal Court is finally disposed of.

THE MANITOBA GRAIN ACT.

The new Manitoba Grain Act now in force and effect was modeled on the laws of Minnesota and the Dakotas. Its provisions briefly stated are substantially as follows: An official, known as the warehouse commissioner, is created, who must have no interest, direct or indirect, in the grain business, to act as general supervisor of the business in the province. He shall require elevator men to take out licenses and operate their houses under bond, and prescribes rules for governing elevators, and provides the forms of all grain tickets and storage receipts that may be used. The elevator must insure grain held in store, but may forward it to a terminal elevator on the same line of road on notifying the owner to that effect and deliver to him the government's certificate of weight and grade issued at said terminal.

In case of disagreement as to dockage, an average sample of at least three quarts of the grain shall be taken and submitted to the chief inspector, who shall, in writing, adjudge the dockage, which decision is final. Whenever an elevator man is accused in writing by a person aggrieved, the commissioner shall investigate, and he shall have access to all books of the elevator and administer oaths to make such investigation. If the accused is found guilty the commissioner may recommend such proceeding at law for damages or a criminal prosecution as the crown attorney may deem proper under the circumstances.

If ten farmers residing within forty miles of their shipping point apply for permission therefor, the commissioner may give permission to erect a flat warehouse of not less than 3,000 bushels' capacity, on the railway premises, the company being compelled to grant a site at a rental not greater than that charged to standard elevators. The commissioner may determine whether more than one such house is needed; and in case it is erected, the additional house shall pay a rental of not less than 6 per cent on the value of the land taken, and also the cost of putting in the siding to it, the railway to furnish the materials.

The operator of the flat house shall give bond the same as other operators. The house shall have not less than three bins of 1,000 bushels' capacity, each separately numbered. The farmer who desires to ship grain is allotted one bin and one only at a time, and shall at once apply for a car. He shall have six clear days to fill his bin and load the car. If the grain is not so delivered and loaded within the time allowed, the warehouse operator

may take possession of the grain then in the bin and ship it for the owner, being allowed half a cent per bushel as his fee, or he may sell it for the owner. The government shall fix the charges to be made for the use of flat-house bins. The operator of such warehouse shall not be allowed to use it for handling or storing his own grain.

On the written application of ten farmers residing within twenty miles of their nearest station, the commissioner may require the railway to erect in its own station yard a free platform for farmers' use in loading directly from vehicles into cars. Twenty-four hours are allowed to load a car from such platform.

Grain commission merchants must take out

THE FIRST GRAIN INSPECTOR.

The annexed facsimile of the appointment of S. H. Stevens to be grain inspector at Chicago, and the instructions accompanying such appointment, is interesting as being the official record of the first order issued by a legally authorized body to establish in America a regular system of grain inspection of record. Out of this appointment and the signal success of the system inaugurated by Mr. Stevens, have since come all the varied systems of grain and seed inspection in the United States.

Although this appointment was made over forty years ago, Mr. Stevens is still in active service in Chicago as inspector and registrar of flaxseed, a

This is to certify that by virtue of the authority vested in the Board of Directors of the Board of Trade of the City of Chicago by their Charter, Rules and Regulations they have appointed S. H. Stevens Chief Inspector of Grain from this date until the second Monday in April 1861, said appointment not renewable at the pleasure of the Board of Directors

In testimony whereof we have hereunto set our hands and affixed the seal of the Association.

Dated at the Board of Trade Room in the City of Chicago this 9th day of April A. D. 1860.

J. W. Murin - President

Seth C. Atkin - Secretary

The duties of Chief Inspector of Grain are to faithfully and impartially inspect under the instructions of the Inspection Committee all grain he may be called upon to inspect, arriving by Canal, Railroad or otherwise, as well as all grain being shipped or otherwise forwarded (grain in bags when required by the Inspector to be taken to a warehouse by the owner or consignee) to keep an office at or near the Board of Trade Rooms, where he or his representative can be found during usual business hours, to keep a correct account of all inspection which shall be posted daily in books to be kept for that purpose, showing the road by which it was raised, the warehouse in which it was stored and such other facts in relation to the inspection as may be deemed desirable to be recorded and to perform all other duties that the Board from time to time may direct.

FACSIMILE OF THE FIRST OFFICIAL APPOINTMENT OF S. H. STEVENS.

licenses and give bond to indemnify customers from loss.

Elevator operators must report daily to the railway agent the amount of grain in store.

Inspectors before opening a car must ascertain its condition, determine the leaks, if any, and make a record thereof, with a general statement of the condition of the car.

Testing sieves shall have ten meshes each way to the inch and be made of No. 28 standard gauge hard tinned steel wire cloth.

Persons interested in the grain shall have access to the weighing machines and to the cleaning houses.

No new elevator shall be operated until the scales shall first have been inspected and approved by the proper officials.

Any person offering manipulated grain for sale with intent to deceive shall be guilty of an offense. Offenses under the act are liable to a fine of \$10 to \$1,000, unless the penalty is specifically otherwise stated.

post he has held since 1882, when he returned to Chicago, after an absence of twenty years (during which he served in the army and resided after the close of the Civil War in Tennessee and Kansas), at the solicitation of the Board, to put into form and operation the present flaxseed inspection system of Chicago.

Mr. Stevens has made grain inspection the study of a lifetime, and has invented numerous instruments and devices designed to facilitate a system of inspection which he has himself reduced to a practical science. Just at present his attention is devoted to the development of a uniform system of inspection of all grains and seeds to be national in scope, the first step toward which was his recommendation to the Chicago Board on this topic, which that body approved and which will be found in his recent report as flax inspector, published in full on another page of this number of the "American Elevator and Grain Trade."

"Be friendly, write frequently."

TEXAS GRAIN DEALERS.

The executive committee of the Texas Grain Dealers' Association met at Dallas, Texas, on September 18, President Harrison presiding, to take into consideration the situation at Galveston, occasioned by the then recent calamity, and to take such steps as might seem necessary for restoring normal conditions for the handling of grain through that port, and to look after the wheat already there, most of it in a damaged condition or a condition liable speedily to result in damage to the grain if it was not handled to dry out.

A resolution was adopted to send Secretary Dorsey to Galveston to look after the grain there belonging to members of the Association who might desire him to do so.

Another resolution, deemed of such importance that it was embodied in a circular for general distribution, was adopted to this effect:

"In view of the fact that some exporters of grain at Galveston are refusing to pay drafts since the recent calamity, the executive committee gives expression to its opinion as follows:

"Resolved, That it is the sense of the members at this meeting that when contracts are made in good faith and shipments are made in the time specified in such contracts and drafts are presented accompanied with bills of lading, properly signed by solvent railroad companies, it is the duty

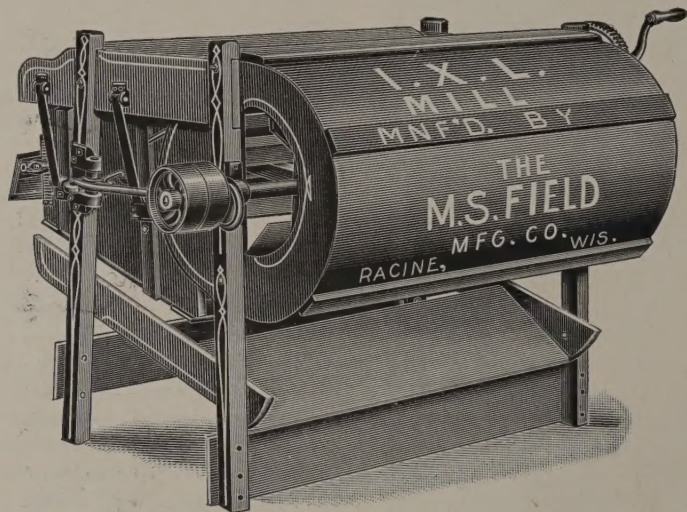
tary H. B. Dorsey as delegate to attend the annual convention of the National Grain Dealers' Association, which will be held in Indianapolis on November 20 and 21.

THE I. X. L. WAREHOUSE MILL.

A famous philosopher once made the observation that with some people experience was like the rear lights on a ship—they only served to light up the pathway that had been gone over. A trite opinion certainly, and true, perhaps, of a few individuals, but in the business world no one undervalues the true worth of experience.

An experience of 30 years in the manufacture of grain cleaning machines is embodied in the accompanying cut of the I. X. L. Warehouse Mill. It is manufactured by the M. S. Field Mfg. Co. of Racine, Wis., and in its construction Mr. Field has arranged in a most practical manner all the modern principles required in a good cleaner.

The machine has a strong blast applied directly to the sieves and without any obstruction. The drum is covered with sheet steel. The irons are made very heavy with long bearings, which can be easily oiled. The shoe is operated by eccentrics and the shake can be easily adjusted from light to heavy. The mill is provided with one tight and one loose pulleys, 6-inch diameter, 2-inch face, and is made of very best hardwood. A part of the mill



THE I. X. L. WAREHOUSE MILL.

of purchasers to pay such drafts when presented."

The secretary was instructed to confer with the railroad companies with a view to securing emergency rates, owing to the inability of Galveston elevators for some time to come to handle grain and the crippled condition of railroads running into Galveston, these emergency rates to be to New Orleans, Vicksburg, Memphis, St. Louis and Chicago, the rates to be the same, or as nearly as possible, as those heretofore in force.

A resolution was also adopted heartily encouraging the pluck and determination shown by the people of Galveston to rebuild and rehabilitate the city, and declaring it to be an imperative necessity that Texas should have at Galveston a natural outlet for the grain products of Texas and more northerly states.

On October 12 a meeting of the Association was held at Dallas in connection with the state fair. The situation at Galveston was the principal subject considered, the Association protesting against the shipment of grain to that port until the condition is improved. It was claimed that the late shipments were retarding the handling of the grain which was on the island at the time of the storm.

After considerable discussion, a resolution was adopted, pledging the coöperation of the members to prevent further shipments, and also to insist that wheat on the tracks prior to the storm be given preference in care and handling. Several who have visited Galveston recently reported that the condition was improving.

At a meeting of the executive committee a number of applications for membership were favorably acted upon. It was also decided to accredit Secre-

is finished in natural wood and as a whole it presents a very attractive appearance.

The company has a new, large and well equipped plant and since the first of the year has enjoyed a very large domestic as well as foreign trade.

BUFFALO-TIDEWATER GRAIN POOL.

The New York Central, West Shore, Erie, Lehigh and Lackawanna roads have formed a pool of the grain traffic by rail from Buffalo to tidewater. The Vanderbilt lines, the New York Central and West Shore, get, it is said, 55 per cent of the traffic, the Erie 25 per cent, the Lehigh 16 per cent and the Lackawanna 4 per cent. Frank Harriott, late of the Erie, will be manager of the traffic and handle the contracts to check up the business of each road. On the strength of this arrangement grain rates east of Buffalo, which had been cut to the lowest rate on record, were restored September 19 to 3 cents, including Buffalo elevator and New York lightering charges. It is stated that the Pennsylvania lines will coöperate with the roads named above by making a corresponding rate from its Lake Erie ports to tidewater.

This general statement is denied, however, by the railroads, whose representatives say the popular idea of the "pool" is entirely erroneous; that Mr. Harriott's business is simply to keep tab on the tonnage of the various roads so that their executive officers may know what each of their competitors is doing. At any rate, if it is a pool, it is claimed, it is not "strictly a pool," inasmuch as

the subscribing companies do not pool their grain traffic earnings, but simply divide the business.

Some New York men are inclined to look on the pool with favor because it is thought to be the purpose of the roads to favor New York, and it is cited as a "straw" to that effect that the British S. S. Zampa on September 24 was loading 140,000 bushels of wheat from the iron elevator at the foot of Degraw Street, Brooklyn, being the first steamer to load grain at that elevator for many months.

Another theory for the pool is that it is a movement "to head off further agitation for the enlargement of the Erie Canal, by showing how completely the grain forwarding trade is under the control of the trunk lines. It is anticipated that the intention of the trunk lines is to maintain a low freight rate until every canal barge is put out of business. The canal business is about on its last legs," said a prominent vessel broker, "and I reckon the railways have formed a grain pool because they think the time is ripe to give the canal business a knock-out blow."

GALVESTON AT WORK AGAIN.

The fearful destruction at Galveston during the storm of September 12 was less severe as to the grain elevators than was at first anticipated, in view of the awful nature of the catastrophe as a whole. The docks, wharves, sheds and railway facilities were greatly damaged, but while the roofs were blown from the large elevators they were not all otherwise vitally damaged, nor were their contents seriously injured, the loss on wheat in store not being, as estimated by Jas. Stewart, of Stewart & Co., St. Louis, in excess of 2 per cent. Elevator A of the Galveston Wharf Company lost its roof, but otherwise was left in possible working order with temporary repairs. Elevator B suffered most, the loading conveyors being swept away so that its grain had to be transferred to Elevator A for shipment, while otherwise it needs reconstruction generally. Within just a week after the storm Elevator A began loading wheat into the steamship Telesfora, the first movement on the docks marking the resumption of commerce at the port. Hanna & Leonard's new elevator started up on September 20. It was about completed before the storm and was but little damaged by it and was completed immediately after the storm in order to handle the grain and put such as is out of condition into condition for export. The British steamer Endeavour went under its spouts September 20 to take a full cargo of wheat. The elevator was hampered, however, for power, its equipment being electric motors taking power from city power company, which could not resume operations for some days on account of down wires.

The grain in the cars standing in the yards at the time the storm burst, about 1,000 cars, was less fortunate than that in the elevators. It turned out on examination that in nearly all of them the water rose into the wheat for about a foot above the bottom of the cars. It being salt water the wheat caked so hard that the "tryer" used by the inspector would not penetrate it. The grain above this water line appears not to have been damaged. The good grain was transferred by hand to other cars and that on the bottom went somewhere—to distilleries or other places—as soon as empty cars could be obtained.

All question of the city's future was settled by the activity of the elevator men and the railway officials who within ten days after the storm had performed the remarkable feat of repairing Galveston Bay bridge so as to make it usable for regular traffic by the morning of September 21.

The resumption of the grain traffic has been rather nominal than real, however, even up to this time. The Galveston Wharf Company's elevators, though not wholly disabled, are not in perfect running condition and must be thoroughly repaired. Elevator B will be entirely reconstructed, a contract to that effect having been entered into by the Wharf Company with James Stewart & Co. of St. Louis on September 24. A contract to repair Elevator A had been previously let. In the meantime

most of the grain and cotton brokers and commission houses have opened temporary headquarters at Houston and are operating but nominally until new routes for the grain can be relied upon.

The Macdonald Engineering Company of Chicago is repairing the conveyor galleries and repairing the damage done by the storm to the elevator of the Texas Star Flour Mills. The new conveyor galleries will be entirely of steel, securely anchored to concrete and pile foundations. It is expected that the repairs can be completed by December 1.

The Port Arthur outlet seems to have suffered by the storm quite as seriously as did Galveston, it appearing that while the elevator there had not apparently been injured, it was, in fact, careened by the storm until the top is about eight inches out of plumb. The discovery was made when an at-

PORT HURON AND NORTHWESTERN ELEVATOR COMPANY'S ELEVATOR BURNED.

At noon on September 13 the elevator of the Port Huron and Northwestern Elevator Company at Port Huron, Mich., was destroyed by fire. Adjoining the elevator and connected with it by a grain spout was the mill of the McMorran Milling Company, as well as a pea mill in which a certain patented pea soup preparation was manufactured, owned by D. McMorran & Co. These properties, together with the cooper shops and other auxiliary buildings, were destroyed. Henry McMorran, his son David McMorran, and C. F. Harrington were the owners of all the properties.

The origin of the fire is unknown. It began in the pea mill, and from this building spread to the elevator connected with the mill by a spout, and soon the entire property was in flames that were beyond the control of the fire department, although when erected they were supposed to be sufficiently separated from each other to make such a catastrophe impossible with the usual activity on the part of the firemen of the city. The illustrations show the elevator as it looked before the fire and as in flames.

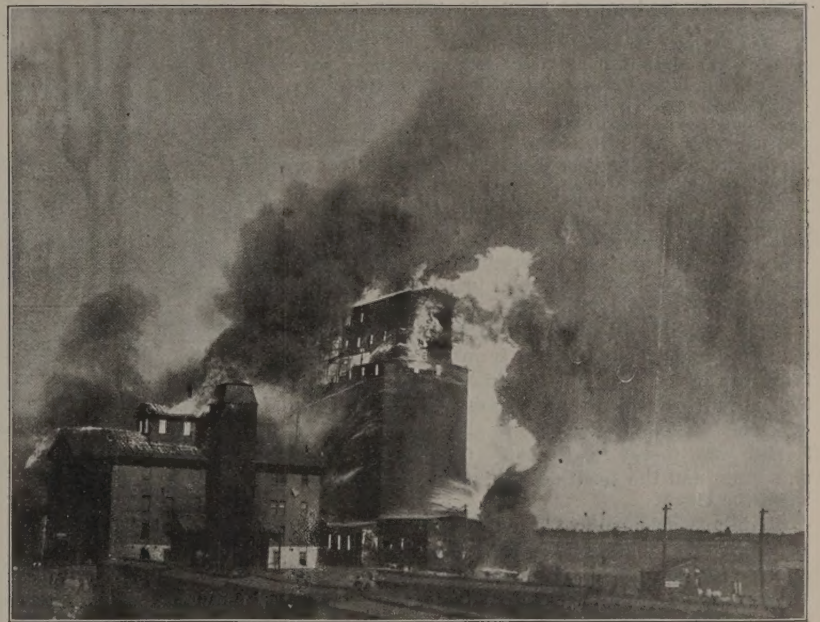
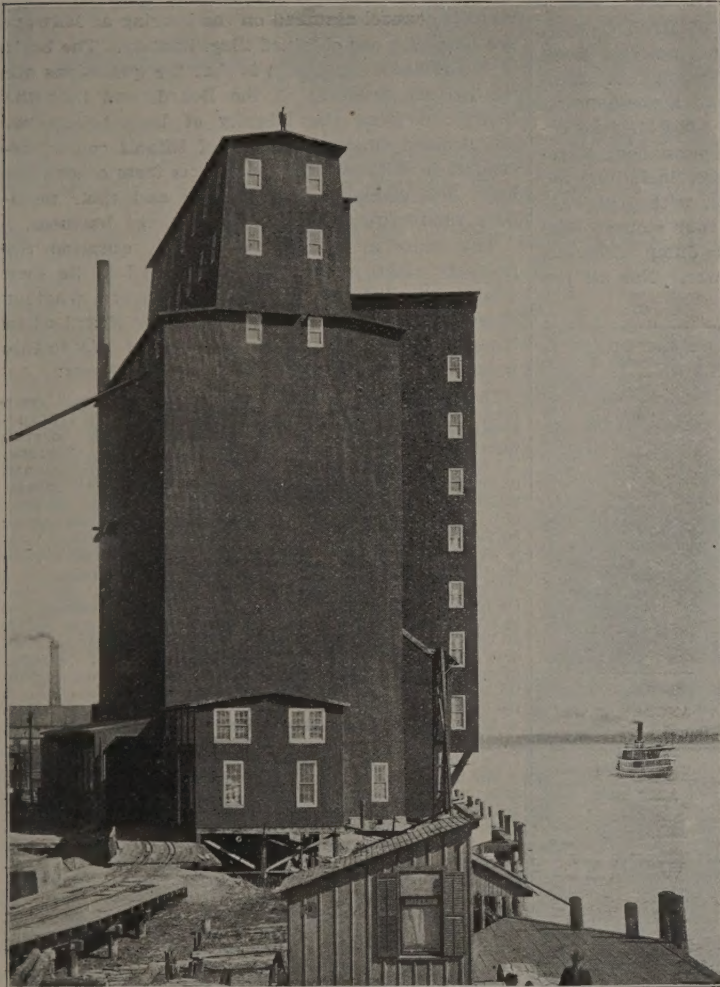
house was designed by the Macdonald Engineering Company of Chicago and was as thoroughly modern as any house built in 1895-96.

It is announced by Mr. David McMorran that the elevator will not be built this year, owing to the high prices of all building materials.

THE CONNERS ELEVATORS AGAIN.

After delays which to the grain men of Montreal have been galling, to say the least, and many bitter complaints that the Harbor Board permitted procrastination, Mr. W. J. Connors of Buffalo, who succeeded last spring in getting a franchise for and possession of about every elevator site in Montreal, returned to that city on September 11, and confessed that he had not yet organized his company, owing to financial exigencies growing out of the Boer war, the Chinese war, etc. He assured his friends on the Harbor Board, however, that "it was all right—he'd be there," but did not know how much time he might want before beginning the work. Then he disappeared again.

Nearly a fortnight later he again reappeared, accompanied by Mr. Geo. T. Smith of Buffalo, and announced that he was ready to go ahead with the work of building the elevators and warehouses called for by his contracts, and would "complete the job as quickly as it can be done." He also stated to the Board in writing that, "in accordance with the expressed sentiment, at the meeting of your honorable Board, held on the 11th inst., that



BEFORE THE FIRE.—ELEVATOR OF THE PORT HURON AND NORTHWESTERN ELEVATOR COMPANY.—ON FIRE.

tempt was made to start the machinery and it was found that it was so badly out of line that it would not run.

It may be of interest, in passing, to note that the American steamship Hyades, which left Galveston just prior to the storm, arrived at New York on September 19 in distress, having passed through the hurricane. The ship had on board 189,000 bushels of wheat consigned to Chicago. Just what was the reason for this remarkable route is hard to say. From Kansas, via Galveston and New York, to Chicago is a circuitous route for a consignment of grain that could have been shipped direct in a few hours. However, the sea water had poured in through her hatches and the cargo was discharged with difficulty at Dow's elevators in Brooklyn. Another Galveston wheat cargo in the Michigan was discharged at the same time by the floating elevators at Pierpont's stores, Brooklyn. This cargo, like the wet grain of the Hyades, was to have been run through the drier at Nye's elevator, but that plant was burned on September 22.

Kentucky will readily agree that the price of corn is the proper standard by which to measure the prosperity of the country.—Washington Post.

It was estimated by David McMorran that the buildings represented an investment of over \$100,000. The elevators contained about 100,000 bushels of corn and 60,000 bushels of wheat. When it was seen that the elevators were doomed, the chutes were opened and the grain spilled upon the floors in order that it might be saved in part. The insurance approximated \$91,000 on the buildings and \$114,000 on the contents, carried by various companies, including the mutuals.

This elevator replaced one destroyed by fire in May, 1895, and was erected in 1895-96, for a capacity of 250,000 bushels, with a bean house in the two-story annex shown in the picture. The main building was 50x100 feet on the ground and 145 feet high, the bin story being 76 feet. It had two receiving legs of 8,000 bushels' capacity each and one lofting leg of 10,000 bushels' capacity, receiving grain from the marine elevator leg, also of 10,000 bushels' capacity. The elevating and distributing machinery was all in good order and efficient. The house had also two Monitor Elevator Separators and one Eureka Oats Clipper, all of the largest sizes, and a complete dust collecting and sweeper system. The power was transmitted by rope system and elevator heads driven by rope direct. The

we make a definite report upon this date relative to the terminal structures for Windmill Point pier, I have much pleasure in notifying you that we will begin assembling material at once, and commence the work of construction next week. We will press the work to completion as rapidly as possible."

On October 2 work on the elevators began under the direction of G. T. Smith of Buffalo on behalf of the syndicate and of W. R. Sinks, engineer of Barnett & Record Company of Minneapolis, who are in charge of the construction. The working house will be built first, the foundations for which will be 271x89 feet. The storage capacity will be 1,000,000 bushels.

The steamer Andrew Carnegie on September 22 loaded at the Illinois Central Elevators, at the mouth of the river, 230,000 bushels of corn. This is said to have been the largest grain cargo ever taken out of Chicago River. On the 29th the Simon J. Murphy took out of the McReynolds elevator at South Chicago 257,260 bushels of grain (wheat and corn), beating the record there; while on October 9 the same vessel took from the same house another corn cargo of 270,000 bushels, the largest ever shipped from the collection port of Chicago.

BROOM CORN BOOMING.

If the broom corn trust, so called, otherwise the Central Broom Supply Company, which was so much in evidence on broom corn a year ago, maintains its command of the trade, it will have to go down into its purse for more money than it took last year to secure the stock. The new crop of brush is this year undeniably short, and the farmers know it, and have been holding the corn against offers much higher than was paid by brokers for most of the crop last year. Prices have consequently stiffened rapidly since harvest, and on September 18 reached \$100 per ton for brush in the field. Some brush has been sold at this figure; but as broom makers are practically without stock and the farmers are not in a rush to sell, even at \$100, the price may go still higher without giving the brokers, who have hitherto taken the cream of the profits, any great amount of picking from this year's crops.

GRAIN DRYING IN BUFFALO.

The Buffalo City Council on the recommendation of the Board of Health has solved the grain drying smell problem by adopting the following amendment to Ch. XXV of the City Ordinances:

"Section 157. No person, firm or corporation shall engage in the business of drying grain that has been damaged by wet or moisture, or damaged grain that is in process of fermentation, without first obtaining a license from the mayor of the city to engage in such business, and paying for such license the sum of fifty dollars. No such license shall be granted except upon the written recommendation of the department of health; and all licenses granted pursuant to this section shall expire on the first day of May next after the granting of the same. No person, firm or corporation carrying on such business, as aforesaid, shall allow the fumes, vapor or any offensive odors given off in process of drying such grain to escape into the open air in such a manner as to cause or tend to cause injury, discomfort or annoyance to any person or persons, or to the public. A violation of this ordinance shall be punishable by a fine not exceeding two hundred and fifty dollars for each and every offense. Nothing herein contained shall apply to the business of malting grain to be used in the manufacture of ale or beer."

The ordinance adopted, it further appeared that some 80,000 bushels of grain from the late Dakota Elevator which had run into the Blackwell canal had begun to ferment and was exuding great gobs of smell. The question before the department of health was, therefore, Does the duty of removing this grain and the smell devolve upon the owner or upon the city?

Simultaneously with the adoption of the ordinance, the department informed the people that the stench from drying wet grain had ceased—there was no more grain to dry.

WHAT NEW ORLEANS IS DOING.

New Orleans continues to increase her grain exports, which for the eight months, January-August, 1900, reached 21,868,937 bushels, against 17,712,634 bushels in same period of 1899. Of the 1900 total 4,756,962 bushels were wheat, 15,636,849 bushels corn, 1,264,834 bushels oats and 218,292 bushels barley.

For the year Sept. 1, 1899, to Aug. 31, 1900, according to the States, New Orleans exported 26,349,856 bushels of corn, 7,973,407 bushels of wheat, 1,294,304 bushels of oats and 162,800 bushels of barley, a grand total of 35,780,367 bushels and a net increase for the year of 8,576,872 bushels. Liverpool was the largest buyer of corn, with Rotterdam second and Belfast third; of wheat Rotterdam was the largest buyer, with Liverpool and Hamburg next in order.

New Orleans has seven elevators for general business and one sacking house for the local trade. The storage capacity of the seven houses is 2,765,000 bushels. Since the Galveston disaster considerable grain has reached New Orleans that should have gone through the former city. Should this trade become permanent, a large increase of elevator room might be made necessary.

Plans are even now being made for an elevator

to be erected for the Texas & Pacific Railway at Westwego, to have 600,000 bushels' storage capacity and new handling capacity of 200 to 250 cars daily. The railroad now has a house at Westwego of 400,000 bushels' capacity. The new house will be no part of the old one, however. The contract for the work has been let to James Stewart & Co., of St. Louis.

The Harmony Street Elevator of the New Orleans Elevator Company has been sold to a Boston company for \$30,000. This elevator was built some twenty-odd years ago by a Mr. Higby. Later it was passed into the hands of the New Orleans Elevator Company, of which H. C. Haarstick of St. Louis was president and L. Naef superintendent. It will be closed as an elevator and remodeled for factory purposes.

A. R. DODGE & CO.

Down in the southwest corner of Reno County, Kansas, is the village of Langdon, on the Rock Island Route, where A. R. Dodge & Co. have erected the elevator shown in the accompanying picture. It is not a big one—only 5,000 bushels' capacity—but it is a well built and permanent structure. In size it is 24 feet square, including the power house. The elevator proper, with driveway, is 22x24 feet in size. There are four storage bins and one shipping bin, and a double dump. The elevators are operated by horse power. Not all the



ELEVATOR OF A. R. DODGE & CO., LANGDON, KAN.

men shown in the doorway are attached to the elevator staff—most of them are carpenters, but the elevator is well located for business and has been doing well since its completion.

THE PACIFIC COAST WHEAT TRADE.

San Francisco is, of course, the leading port for handling export wheat on the Pacific Coast. Its shipments for the calendar year 1900 to August 1 were 8,437,715 bushels, being second only to New York. Portland, Ore., stood fifth on the list of wheat export cities for the same period, having exported 5,337,641 bushels. Puget Sound ports (consolidated in the returns) stood ninth, with exports of 2,105,359 bushels.

On the Sound Tacoma led in wheat receipts for the crop year, September 1, 1899, to August 30, 1900, with 5,950 cars, to Seattle's 3,732 cars. The great triple wheat warehouse at Tacoma, of which so much has been said, is now almost entirely completed, the second of the three sections having been opened for use on September 17, with 300 cars of grain waiting to be unloaded.

About all the grain going abroad through San Francisco is shipped by four firms, who last cereal year made 149 out of 165 clearances of wheat cargoes. These firms are G. W. McNair, 48 clearances; Balfour, Guthrie & Co., 45; Eppenger & Co., 36; Girvin & Eyre, 20.

Up to September 1 the water craft on San Joaquin River were busy handling the grain flowing into Stockton for movement to Port Costa. Rain usually falls in the wheat country along about the middle or end of September, so that the farmers endeavor to have all the wheat they want to sell disposed of before that time, and the balance put under cover. Although the crop this year was

only about half normal, the amount of wheat in store at Port Costa and Stockton was greater at September 1, 1900, than at same date a year ago, being 108,060 tons at Port Costa and 68,264 tons at Stockton, against 95,453 and 51,524 tons, respectively, for September 1, 1899. There was also a larger stock of barley in store at those towns this year than last at September 1.

THE MILWAUKEE MEN BEAT THE CHICAGO BOARD.

The application of the Chicago Board of Trade for an injunction restraining the outside brokers, etc., of Milwaukee from making use of Chicago Board quotations was denied by Judge Seaman at Milwaukee on October 1.

Just how the Milwaukee defendants get the quotations is unknown to the Chicago Board, but the Board's counsel assumed on the hearing at Milwaukee that they are obtained illegitimately. The basis of the Board's contention is that the quotations are the private property of the Board, and that the Board, realizing the iniquity of bucket-shopping, has decided, on the strength of Illinois courts' decisions, to withhold the quotations from other than bona fide commercial exchanges and their members conducting a strictly on "Change business."

The court at Milwaukee did not question the property rights of the Chicago Board in its own quotations, but the question was raised whether those rights were waived or lost by the Board when it permitted the quotations to be posted. As to this point Judge Seaman's decision is as follows:

The bill rests in the theory that the complainant has a property right in the quotations made upon the transactions of its exchange and may restrict their use to such parties as conform to its regulations in respect thereto. At common law the right of property of the complainant in its quotations, as prepared by its officers and agents, until publication, is well established; and it is thereby entitled either to withhold entirely from publication or to make the first publication. Against subsequent publication the common law affords no protection, and it can be obtained only through the statutory copyrights.

The rule is well established that giving out the quotations to a limited number of persons for individual use is not such publication as will defeat the property right. In reference to the quotations of this complaint, however, the supreme court of Illinois has held that the right of complainant was qualified by the interests of the public to such extent that so long as it continued to give out its quotations either directly or indirectly it must do so without unjust discrimination as to persons, and must furnish market quotations to all who may desire to obtain them for lawful purposes and upon the same terms.

The answer of the defendants, among other matters, sets up in substance the right of the public to these market reports as part of the general news and information of the day, a contention which is not tenable. Other matters are put in issue, however, by the answer and affidavits on behalf of the defendants, which call for the hearing of proofs before the drastic remedy of an injunction can be invoked.

As such allegations are introduced as well on behalf of the other defendants, for the purposes of this motion, both the issue of fact and its effect upon the property rights asserted by the complainant must be left for determination when the proofs are submitted. Moreover, the other defendants expressly deny that their reports are obtained surreptitiously, and aver that they are transmitted to them after their public posting in the various places in Chicago, upon blackboards and otherwise, to the extent of making them public property.

As the right of property asserted on behalf of the complainant subsists only until publication, and from the nature of the transactions this period is necessarily one of minutes and not hours, I am of opinion that issue is raised in that regard, which can be determined only when the proofs are taken, and cannot be prejudged on this motion for preliminary injunction.

The court, therefore, sent the question to a referee, who will take testimony for the purpose of showing whether the giving out of the quotations and their posting upon the blackboards in Chicago is sufficient to destroy the Chicago Board's claim of privacy; and until that question is decided no injunction as asked for will issue. The Board's attorney insists he will have no difficulty in showing that the quotations are used by the Milwaukee defendants before they become public property in Chicago or elsewhere.

On October 8 the Chicago Board reopened the case to have the referee take testimony immediately—on the 11th at Milwaukee and 13th at Chicago. This was a step unexpected by the defendants. The Board expects by this testimony to show how and whence the defendants get the quotations.

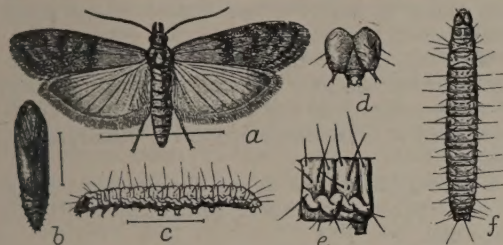
Texas feeders are paying Chicago prices for corn in that state.

[For the "American Elevator and Grain Trade."]

SERIOUS INJURY TO STORED WHEAT BY INSECTS.

BY PROF. W. G. JOHNSON, MARYLAND AGRICULTURAL COLLEGE, COLLEGE PARK, MD.

In April, 1896, the writer called attention through the "American Elevator and Grain Trade" to an insect which spun a great amount of silk in a granary in Mexico, stating that it was without doubt the Indian-meal moth, *Plodia interpunctella*. Since that time I have had occasion to refer to the same insect through the American Miller



Plodia interpunctella.

INDIAN MEAL MOTHS.—a, moth; b, chrysalis; c, caterpillar, lateral view; f, dorsal view somewhat enlarged; d, head, and e, first abdominal segment of caterpillar, more enlarged.—After Chittenden in Year Book, 1894, U. S. Dept. Agriculture.

several times. It has been mistaken for the flour moth by some millers.

During the past few weeks my office has been deluged with inquiries about an insect doing serious damage in stored wheat. In one instance 10,000 bushels were at stake, while in another 4,000 bushels were infested. The writer has made a careful examination of the wheat in many granaries and finds the Indian-meal moth is the depredator in almost every case.

The moth itself does no harm, but the worms, or larvæ, resulting from the eggs deposited by it, are the depredators. They feed upon the wheat, cutting the ends of the grains and giving them the appearance of having been cracked. When fully grown the larvæ spin silken webs over the surface of the wheat, matting it together. They also spin a cocoon, in which the larva changes to a pupa, from which the adult moth appears a little later. When these cocoons are spun in the wheat several kernels are attached to them, making masses of wheat about the size of the end of one's thumb. These bunches can be seen over the surface if the wheat is disturbed. Owing to the webbing of the wheat I have thought that we should call this the "wheat web worm."

From the economic standpoint this is by far the most important and widespread outbreak ever recorded of the ravages of this pest. Farmers are greatly alarmed over a wide area about the unusual numbers of these insects. The species is cosmopolitan, and should be looked after wherever wheat is stored.

We have been very successful in destroying it where we have used bisulphide of carbon. We have been using it at the rate of one to two pounds in one hundred bushels of grain in store, leaving the grain exposed to the fumes over night. In several cases, where the buildings were quite open, we used hydrocyanic acid gas to destroy the moths in the upper part of the inclosure, while the bisulphide penetrated the grain. These two gases have been very effective, one being lighter than air, while the other is heavier. In larger buildings, where there is a greater amount of air space, I advise the use of hydrocyanic acid gas. This gas is especially adapted to the fumigation of warehouses, elevators, tanks, etc. It is easy to apply and not difficult to generate. It is not inflammable and cannot explode or produce fire under any circumstances. It is made by combining cyanide of potassium, sulphuric acid and water. It is a very deadly gas, and nothing can live within its fumes. It has to be handled, therefore, by expert hands. We have used this gas now for one year in a large number of mills, and in every case with marked success. Any person desiring to use this gas should read the two articles on it in the American Miller for September and November, 1899. For the general fumigation of large build-

ings I know of nothing better than hydrocyanic acid gas; while, on the other hand, for the fumigation of grain in bulk infested with insects, bisulphide of carbon has no superior.

In a recent circular I gave the following suggestions for using bisulphide of carbon:

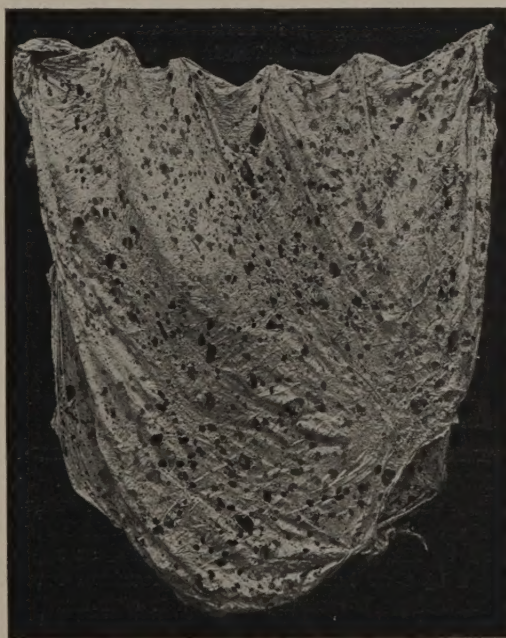
Bisulphide of carbon, the material used, is a very foul-smelling, volatile liquid, as clear as water, the fumes of which are several times heavier than air. They create a death atmosphere in which no animal life can survive. The material can be placed directly upon grain without the least deleterious effect, so far as injury to the germ is concerned and does not hurt its edible properties. Although a very foul smelling liquid, it leaves no bad after-effect, and is sure death to insects wherever it reaches them. The material can be bought in any quantity in from ten to one hundred pound cans from Edward R. Taylor, Penn Yan, N. Y., at about 10 cents per pound. From one to two pounds of the material is all that is necessary for every hundred bushels of grain in store, or the same amount for every thousand cubic feet of space, the amount used depending upon the tightness of the building or bin and the intensity of the attack. If the bin is very tight, one pound of bisulphide to every hundred bushels will be sufficient. If open use two pounds. In applying the chemical, after the capacity of the bin or house has been determined, it should be placed in tin pans, soup plates, or any vessel with a large evaporating surface, and set around directly on top of the grain. The room or bin should be closed as tightly as possible and left for at least 24 hours. I would advise its use in pans or soup plates, as the fumes are kept more constant for a greater length of time, as evaporation is gradual, and better results are secured.

Caution: It must be borne in mind that this material is a very explosive one, when the fumes are mechanically mixed with air; therefore it must be handled with caution during the fumigation of a house or bin. Especial care should be taken that no lights or persons with a light of any kind, even a cigar or pipe, are allowed around the room or building. With this caution, there need not be any fear to persons applying it, as a reasonable amount can be inhaled without injury during the operation. Of course it is necessary for the person applying the material to get out of the building as soon as possible. If you will kindly inform us of the size of your bin or room, and the amount of grain in it, we will tell you how much of the chemical it will take.

In my investigations I found the saw-toothed grain beetle, *Silvanus surinamensis*, doing considerable damage to wheat in several localities. This beetle has a wide distribution throughout the world. I will now give a brief outline of the life history of these two insects, with illustrations.

THE INDIAN-MEAL MOTH.

The Indian-meal moth, *Plodia interpunctella*, has a wide distribution, as noted above. It does not

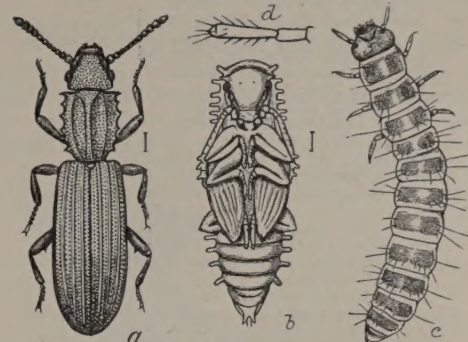


SILK FABRIC made by Larva of Indian Meal Moth.—After W. G. Johnson in "American Miller," April, 1896.

confine its attacks to grains and farinaceous products, but feeds on seeds and various kinds of nuts, dried fruits, roots and herbs. Even dried insects in cabinets are not free from its attacks. It will feed upon sugar, jelly and yeast cakes, and has even been found troublesome in beehives. It is an all-around nuisance in granaries, stores and houses.

The adult moth is shown in the accompanying illustration at a. It measures from one-half to three-quarters of an inch with wings expanded. The outer two-thirds of the fore-wings is a reddish brown, with a dull, coppery luster, and the inner

third is a dirty, whitish gray, giving the creature when at rest the appearance of a whitish band just back of the head. The moths are quite active and are easily disturbed. They may be seen flying about a granary or warehouse in the daytime, but they are usually more active at night. The female may often be seen resting with her wings drawn close to her body, with the tip of her abdomen turned up between them, in which position she remains unless disturbed, until found by the male. The female deposits her eggs upon



Silvanus surinamensis.

SAW TOOTHED GRAIN BEETLE.—a, beetle; b, pupa; c, larva, all enlarged; d, antenna of larva.—After Chittenden in Year Book, 1894, U. S. Dept. Agric. Iture.

the grain, where they hatch in a few days into tiny worms, which begin feeding upon the grain. When full grown the worms, or larvæ, are about half an inch long, flesh-colored and hairy, as shown in the illustration at c. They have the peculiar habit of spinning fine silken threads wherever they go, especially when fully grown, at which time they migrate to some corner or angle for pupation. It is during this migrating period that they line the inside of granaries or bins with their silk and web the entire surface of the wheat. These silken threads are spun back and forth in every conceivable direction, and after a while the silk is woven into a beautiful, fine, delicate fabric. A specimen of this fabric, as soft as the most costly silk cloth, is shown in the illustration.

During very warm weather this insect is capable of passing through all its stages from egg to adult in about five weeks. There are in all probability from five to seven generations annually where the temperature is favorable, and the late broods do the most damage. It does not usually make its ravages conspicuous until late in August or September. It passes the winter in most cases in the larval stage.

THE SAW-TOOTHED GRAIN BEETLE.

This little beetle is widely distributed throughout the world, and is of common occurrence in granaries, in groceries, in dwelling houses and barns, and, in fact, almost everywhere edibles are stored. It is nearly omnivorous, infesting grains and seeds of all sorts, flour, meal, bran, screenings, bread-stuffs and other materials. It has been reported, through the American Miller, as specially injurious in different years in many states.

The insect is a clavicorn beetle of the family Cucujidæ. It is only about one-tenth of an inch long, slender, much flattened and of a dark, chocolate-brown color. On each side of the thorax, just back of the head, on the upper surface, are six saw-like teeth, as shown in figure at a. On account of this structure it is called the saw-toothed grain beetle. The larva, as will be noticed by reference to the illustration (c), has six legs. It is exceedingly active, and does not pass its life wholly within a single grain, but moves about, eating here and there. After attaining its growth the larva attaches itself to some convenient surface and constructs a covering by joining together small grains or fragments of infested material by means of a silken substance which it secretes, and within this case the pupa (b) and afterward the adult states are assumed. It is estimated that there are six or seven generations of this insect annually in the latitude of Maryland. During the summer months the life cycle requires but twenty-four days; in spring, from six to ten weeks. The pest winters in the adult stage, so far as is known.

DE SINGIN' OB DE CORN.

When de summer day am done,
An' de sun am sinkin' low,
Et's soothin' des to lie upon de grass
A watchin' in de sky
De red an' yallah glow
Ob de clouds as dey goes a floatin' pas'.
Yo' snarlin' min' stops frettin',
As yo' lie an' watch de glisten
Ob de sunlight as it dances fah an' neah,
Wha de tall corn waves an' rustles,
An' et calms yo' fur to listen
As de singin' ob de corn falls on yo' eab.

Et mak's yo' feel so quiet
Fur to heah dem leabs a rustlin',
As de blades o' corn go swayin' down de row;
You fo'gets about de wranglin',
An' de worry an' de bustlin'
Ob de wimmin in de kitchen, now fo' sho';
Yo' fo'gets about de men
Wat's all de time a gettin'
In a stew, an' a wrinkl'n o' dare brow;
Yo' shets yo' eyes an' whispers,
Wha's de use o' dis yeah frettin',
An' dis ebbahlastin' hurry anyhow!

Sweet an' low, sweet an' low,
De corn am singin',
An' et looks like some grand army on parade.
To an' fro, to an' fro,
De birds am wingin'
Wha de breezes blow de tasseled eah an' blade.
An' when de autumn days come,
An' de corn am in de shock,
Wi' de punkins on de groun' a gleamin' yallah,
De corn sings den o' wintah nights,
An' de tickin' o' de clock,
An' de apples an' de cidah in de cellah.
Yo' mos' kin smell de hoe-cake,
An' see de pop corn ball,
An' de darkeys pass aroun' de cidah mug,
Yo' calls to min' de fireplace
Wi' de shadders on de wall,
An' de darkey babies sprawlin' on de rug.

De singin' ain' so sof' like
As on de summer day,
Fo' de corn am dry an' husky, don' yo' see;—
It min's yo' o' de granny
Dat croons an' croons away
To de chilluns dat's a climbin' on 'er knee.
But de granny's voice am sweet,
As back an' forth dey rock,
De chilluns t'ink et sweet, an' quiet grow;
An' we lubs to heah de song
Ob de corn dat's in de shock,
As across de autumn fiel's de breezes blow.

Sweet an' low, sweet an' low,
De corn am singin',
But dat army's stackin' arms, sho's yo' horn.
To an' fro, to an' fro,
De birds am wingin'
Wha de breezes blow upon de shocks o' corn.

—Susanna Hay.

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

PREFERS LONG FUTURES.

Editor American Elevator and Grain Trade:—I like the publication of quotations on long futures, as I think it gives the buyer a little better chance, but short futures may suit the seller better.

Yours truly, ED. LEE.
Millott, Ind.

LET THE RULE STAND.

Editor American Elevator and Grain Trade:—We think it better to allow the Chicago Board of Trade rule on futures to remain as it is. It does not affect our business in any way whatever, and is, so far as we know, satisfactory.

Yours truly, FRED LIENAN.
Mt. Carmel, Ill.

USES AN AUTOMATIC WEIGHER.

Editor American Elevator and Grain Trade:—I am using an automatic weigher here and it does very well, but gives me some trouble to keep it in plumb on account of the house, which is in poor shape and sways more or less. I think in a solid, well-built house they would give satisfaction.

Respectfully, E. C. NORTHWAY.
Campbell, Neb.

MR. HIEATT'S NEW POSITION.

Editor American Elevator and Grain Trade:—I wish to inform you that I have sold my elevator here to J. D. Harpster, who took possession on September 13.

I have engaged with the Moffatt Commission Co. of Kansas City, Mo., to travel in their interest,

soliciting business from the regular trade only. No farmers' or irregular business wanted, they say.

Respectfully yours, N. B. HIEATT.
Willis, Kan.

CHANGES OF AN ILLINOIS DEALER.

Editor American Elevator and Grain Trade:—I have sold my half interest in the Vandalia Line Elevator to my former partner, R. O. Harris, and the business is now conducted in his name instead of the firm name of Harris & Wesch.

I have bought the H. M. Bone Elevator, better known as the Woodworth Elevator, located on the Illinois Central Railroad. Mr. Bone will retire from the grain business.

Yours respectfully, J. A. WESCH & CO.
Arcola, Ill.

WOULD NOT USE AUTOMATIC WEIGHER AGAIN.

Editor American Elevator and Grain Trade:—In regard to automatic weighing machines, we had one in our elevator which burned. When we rebuilt we arranged for and put in a 500-bushel Fairbanks-Morse Hopper Scale. Our weights are now nearly always correct. When we had the automatic machine we did not feel that we could swear by it and we had a good many discrepancies in weight. We would not think of using one again.

Yours truly, C. E. NICHOLS.
Lowell, Ind.

RESTRICTS OUTSIDE TRADING.

Editor American Elevator and Grain Trade:—The rule of not publishing quotations of long futures does not affect us. There is much less trading in futures here under the new rule, as most of the country traders think long futures are not being traded in, yet almost any commission house will execute such orders.

Such being the case, I can see no advantage in not publishing long future quotations. It certainly restricts outside trading.

Yours truly, F. S. LARISON.
El Paso, Ill.

SATISFIED WITH 60-DAY TRADING RULE.

Editor American Elevator and Grain Trade:—We do not believe that the publication of the quotations on long futures is material so long as the long futures are not traded in at all, but we do believe that the suppression of the price at which any transaction takes place is a detriment to the trade in general. We believe that no transaction at all should be permitted on the floor of the exchange that is not to be public.

We are well satisfied with the 60-day rule and believe that it promotes steadiness in the markets and confines values to a more legitimate and intrinsic basis than the long-time options which are solely for the benefit of European trade and purely speculative traders.

Yours truly, MATTOON ELEVATOR CO.,
H. E. Kinney.
Mattoon, Ill.

APPROVES ACTION OF CHICAGO EXCHANGE.

Editor American Elevator and Grain Trade:—Referring to the matter of confining deals in futures to shorter periods, will say that any decision arrived by the Chicago Board of Trade, as represented by their board of directors, touching speculative trading, is certainly entitled to consideration. Individual or personal interests may have some influence, but as broad business men they no doubt have adopted their present course, knowing that it would accommodate all the legitimate demands of speculation, and at the same time serve as some check on manipulation.

Future sales and purchases are largely speculative at best, and the operators can surely figure one or two months ahead with more reasonable chance of being right than they could for six months, or the whole year.

The frequent shifting necessary under the rule may not please all, and no doubt many will object to it for more weighty reasons, but we can see nothing in it that would work injury to our business, and believe for the general trade it would be beneficial to let it stand; and if possible, ex-

tend the same rule to all the exchanges of the country. It would at least work to the advantage of the members of the various boards, and also have a tendency to produce steadier markets, and confine speculation to more conservative lines.

Yours truly, JAS. P. McALISTER & CO.
Columbus, O.

NEW RULES ARE ADVANTAGEOUS TO COUNTRY DEALERS.

Editor American Elevator and Grain Trade:—We are inclined to think that the action of the Chicago Board of Trade in declining to change the new rule before giving it a fair chance to see what effect it will have on the trade is a good thing.

We think all of the changes that have been made during the past six months in the manner of doing business by the Chicago Board of Trade have been of great advantage to the country grain dealer.

I should like to see all of these reforms given a good chance to test their good qualities if they have any.

Yours very truly, McCORD & KELLEY.
Columbus, Ohio.

PREFERS HOPPER SCALES.

Editor American Elevator and Grain Trade:—I have never used an automatic weighing machine, or seen one in use, in an elevator. From what I have heard I think they would be unsatisfactory, as, I understand, they have to be operated in the cupola, where they are out of sight and reach, and in the dustiest part of the elevator, making it easy for the dust to clog them, and hence they are unreliable.

I use a hopper scale of 60 bushels' capacity and find I can weigh out my grain as rapidly as it can be taken away by elevator and loaded into car, thus getting accurate weight of grain in car, and no time is lost.

I think a clean bill of lading is the only solution of the short-weight-at-terminal problem. The best means to that end that I have heard of is to compel railroads to put in a track scale at every station and weigh cars before and after loading, giving bill of lading accordingly. This would then throw the shortage onto the railroads, and I vouch for it that short weights would then sink into innocuous desuetude.

Yours truly, C. A. PFUND,
Woden, Iowa. Agent Dysart Grain Co.

EVEN WEIGHT SACKED GRAIN FOR SOUTHERN TRADE.

Editor American Elevator and Grain Trade:—As yet we have had no experience with automatic weighing machines. We will say, however, that we have been so impressed with the necessity for something of this kind, that we have just made arrangements to have one put in our plant and will be very glad to give you the results of our experience with this machine at the end of three or four months.

If the machine that we are putting in is as accurate as is claimed for it, and care and caution exercised in handling the business so as to preserve the original load in the sack while it is being handled and sewed, we should think it would do away with trouble and annoyance of short weights at terminal points. Not only that, but with the Southern trade there is a growing demand for the shipment of grain in even-weight sacks, and the shipper will simply have to provide what his customer wants.

Up to the present time in this market, all grain has been sacked by hand with a scoop and weighed on an ordinary platform scale, where the weight is required to be even. This is a slow, tedious and expensive method and there seems to be no good reason why an automatic scale cannot be made that will do this work very much more satisfactorily than by this method.

We have great hopes of the success of our plans and will be glad to give you our experience later if wanted.

We have heard of sewing machines to be used in this connection, but up to the present time have

not been able to locate a manufacturer. Can you put us in communication with a good one?

Very truly yours,
NASHVILLE WAREHOUSE & ELEVATOR CO.
Nashville, Tenn.

CROPS IN CENTRAL ILLINOIS.

Editor American Elevator and Grain Trade:—There was quite a heavy frost in this locality last night (September 16), but as corn is well matured and the weather dry, very little damage was done.

Farmers will soon begin to crib and market corn. It is unusually dry and well matured for the time of year. Quite a large amount of corn has been put in shock this fall. A good deal of fall plowing is being done, but little wheat will be planted. Farmers seem to be thoroughly disgusted with trying to successfully raise wheat here. Why this change? From 1889 to about 1892 wheat was a sure-paying crop in this locality. Corn is the surest crop here, but this land, though very productive, requires a rest from any one crop.

The corn crop here is an unusually large one this season, everything having been very auspicious for its growth and maturity. We have also raised and marketed a fine crop of oats. Farmers around here are not kicking.

It is understood that an elevator is to be built at Buffalo Hart, on the Illinois Central Railroad, 12 miles northeast of Springfield, by Chicago parties.

Respectfully,
M. R. THAYER.
Dawson, Ill.

CONDEMN'S PRESENT CHICAGO TRADING RULE.

Editor American Elevator and Grain Trade:—We do not approve the present rule on the Chicago Board of Trade, which limits trading in futures to the second month.

Its confessed and only object is to compel traders to make their trades oftener than they have heretofore done, and oftener than they would now do if they had their choice in the matter.

There is no plea that this rule either simplifies the system of trading, or makes it safer or in any way more equitable to either buyer or seller. There is no claim that there is any principle involved. It is simply an effort on the part of the brokers to force the trade into two or three transactions, which were formerly condensed into one. If successful, the result would be to increase their revenues in the same proportion, but without affording any corresponding remuneration whatever to the trade at large.

Of course, where our revenues are involved we are all for "expansion;" and if Mr. Broker on the Chicago Board of Trade can thus easily and surely add to his, he will very naturally do so.

The question is, can he do it? The public have the remedy in their own hands. If trade is withheld until this obnoxious rule is made to go, it will not stand upon the order of its going.

Yours very truly,

McCLURE ELEVATOR CO.,

McClure, Ill. Breedlove Smith, President.

OPINIONS ON AUTOMATIC WEIGHING MACHINES FOR GRAIN ELEVATOR USE.

Editor American Elevator and Grain Trade:—Regarding automatic weighing machines in an elevator, and whether scales are necessary as part of an elevator equipment, will say that our company never used but one of these automatic scales, and it was not satisfactory and had to be replaced with a regular hopper scale. We would not think of erecting or operating an elevator without a hopper scale whereby we could weigh out grain and keep check on the terminal weights. All our elevators are equipped with hopper scales.

Yours truly,

NYE & SCHNEIDER CO.,

A. J. Zingre, Manager.

Mason City, Iowa.

Editor American Elevator and Grain Trade:—We have never had any experience with automatic weighing machines. If we could be convinced that they would weigh without error, and that the weights would hold with the railroad companies and receivers in settlement of disputed weights,

we would say, put them in by all means. There is no question but that we need automatic weighing machines if they can be made reliable.

Yours truly, PEARSON & HAYTON.

Pierson, Iowa.

Editor American Elevator and Grain Trade:—We have never used an automatic weighing machine. Even though they were improved almost to perfection, we do not believe they could be accurate in weighing a carload lot, because of the hopper being so small. We use a 1,500-bushel hopper scale. We also consider track scales unreliable.

Yours truly, J. M. MURRAY & CO.

Eureka, Ill.

Editor American Elevator and Grain Trade:—I have never seen an automatic weigher used in an elevator and so cannot say anything about them for this kind of work.

Where they are used by thrashing machine men they are not satisfactory at all. But this would not be fair test because of some little shaking about the separator, which would not be present in an elevator.

Yours truly,

A. R. MEAD.

Linden, Iowa.

Editor American Elevator and Grain Trade:—We have never had any experience with automatic scales and consequently are unable to give any opinion concerning them. On general principles, however, we prefer hopper scales for carload lots.

Yours truly,

W. B. NEWBIGIN.

Blue Mound, Ill.

Editor American Elevator and Grain Trade:—I have no automatic weigher but think if they are correct they would be a good thing.

Yours truly,

G. W. MADDIN.

Thawville, Ill.

Editor American Elevator and Grain Trade:—We have never had any experience with automatic weighing machines and cannot say how they would work. It would undoubtedly be a very fine thing if somebody could invent something that would actually record each draft.

Yours truly,

MILWAUKEE ELEVATOR CO.

Milwaukee, Wis.

Editor American Elevator and Grain Trade:—We have neither used nor seen in use an automatic weighing machine, and so are not in a position to give any opinion in regard to them. However, we think from the name they would be very handy if they were perfect in every respect.

Yours truly, GEO. W. POST & SON.

Lehigh, Iowa.

Editor American Elevator and Grain Trade:—We use hopper scales, weighing a carload at a time. A man cannot afford to do grain shipping without some plan of weighing stuff correctly, as it is shipped. If I had not the hopper scales I would certainly try an automatic scale, for from what I can learn of them they give as correct weights as any class of scales on the market.

Yours truly,

MIDLOTHIAN GRAIN & ELEVATOR CO.

Midlothian, Tex.

RICE RETURNS.

The Hinz Rice Milling Company at Beaumont, Texas, has overturned the trade traditions by advertising to "give account of sales on thirty days." It has been the practice to render such sales accounts to patrons of the rice mills, the rice farmers, only when the last bag of rice screenings has been sold.

Milled rice is classified as follows: Pockets Head Rice, Pockets Screenings, Pockets No. 2, while the charges are the following: Milling, per barrel, 162 pounds net weight, 40 cents; empty pockets, each 8 cents; cash discounts, 1 per cent; fire insurance, per sack, from 3 to 6 cents; selling commission, 3½ per cent. The head rice is sold as soon as milled, bringing about seven-eighths of the proceeds.

All rice mills store unmilled rice free, if it is to be milled. And as a rule it is; for it is always incon-

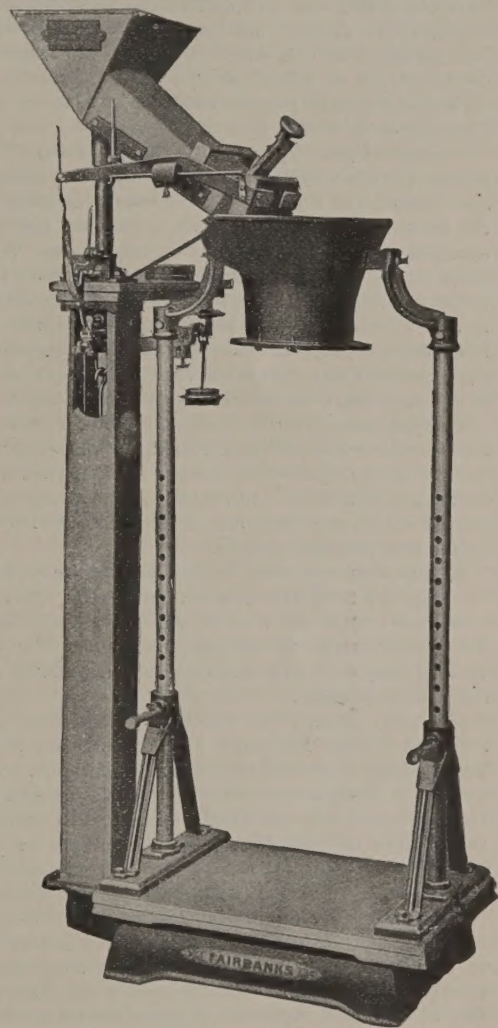
venient for the mill to deliver the original rice without milling, even when storage charges are paid.

THE BOSWORTH AUTOMATIC WEIGHING SCALE.

The wholesale and retail grain and feed trade in many sections of the country, the South especially, is demanding that grain be bagged in even weights. As some shippers are catering to this demand it is only a question of time when all will have to come to it.

To fill bags in the usual way and then even up the weights on a platform scale by hand is a slow and expensive method from which all dealers who are compelled to practice it are seeking a reliable means of escape.

Our illustration shows a machine for this pur-



THE BOSWORTH AUTOMATIC WEIGHING SCALE.

pose, made by Munson Bros. Co. of Utica, N. Y. It is made in only one size, the capacity of which depends largely upon the swiftness of the operator in handling the bags. It will fill and weigh as fast as a man can conveniently set aside and tie the bags.

Any man of ordinary intelligence can operate it. A bag is placed firmly in position and the platform raised to support it. The scale is set for the weight desired in the bag. Then the operator presses down the lever with pivoted finger until it is held in position back of the adjustable keeper. When the desired weight has been discharged into the bag, the scale automatically trips and allows the gate in the spout to close instantly.

The operator then removes the filled bag, puts an empty one in its place and presses down the lever as before. While this bag is filling, the first one can be tied and set aside, and so on.

The manufacturers claim that the machine gives accurate weights and they ask a careful investigation of its merits.

The price of cottonseed meal in Texas was reduced from \$18 to \$16.50 per ton in September, feeders to return the sacks.

ILLINOIS GRAIN DEALERS AT PEORIA.

The semi-annual meeting of the Illinois Grain Dealers' Association was held at Peoria on Thursday, October 11. The use of the assembly room in the City Hall had been tendered for the occasion, and proved to be a very commodious and elegant place of meeting. The convention was called to order by President B. S. Tyler of Decatur at 1:30 p. m. About 100 members were in attendance at the opening session.

The Hon. Mayor Lynch of Peoria welcomed the grain dealers to the city in a short, but well chosen speech. He expressed the gratification of Peoria on the privilege of extending hospitality to the grain dealers. At the same time he made a humorous reference to his own connection with the grain business, saying that he was formerly a grain dealer himself, but is now making "an honest living." But the grain dealers were welcome to the freedom of the city, in or out of the City Hall, Peoria being in an exceedingly mellow condition, owing to the Corn Carnival which was in progress.

President Tyler expressed the thanks of the grain dealers for the mayor's hearty welcome, and related an incident which occurred at a former meeting of the association in Peoria, when a member lost his overcoat, which was returned to him by the vigilance of the police department. He expressed the hope that the freedom of the city would not result in any member carrying his liberty too far, and in illustration of the point he related a humorous story. He reminded the delegates that they were in a city which but a comparatively few years ago was a hunting ground for Indians, but which now consumes between 60,000 and 70,000 bushels of grain daily. Of the 280,000,000 bushels of corn produced in Illinois annually 170,000,000 bushels are consumed within the state, and no city exceeds Peoria in the consumption of corn.

A paper on the Evils of the Bucket Shop System, by W. S. Warren, president of the Chicago Board of Trade, was read by Secretary T. P. Baxter of Taylorville in the absence of Mr. Warren. Printed copies of this address were distributed to the dealers present.

Mr. I. P. Rumsey of Chicago delivered an address on Public Elevators and Commission Men. This address is printed elsewhere in this issue. Mr. Rumsey's paper called forth not a little discussion. He was asked how the evil of special rates on railroads is to be remedied, and replied that he believed in enforcing the laws at present on the statute book. He cited the law compelling the railroads to give a clean bill of lading, which should be demanded. Asked how a grain buyer can afford to buy grain and consign it and take chances on the market, Mr. Rumsey said that such buyer should buy at a margin sufficient to make the transaction safe and profitable. When asked if the commission man offers the exporter grain at an agreed price before he buys the grain himself, he answered, "Yes, but he sometimes hedges."

James D. Parrott of St. Louis suggested that it was as much to the interest of the grain buyer to buy futures as it was to the interest of the commission man.

A paper was read by J. W. Radford of Chicago on "Reciprocal Relations Between Regular Shippers and Commission Merchants." This paper is published elsewhere in this issue.

Edw. G. Heeman of Chicago addressed the convention on the pamphlets issued by him entitled "Grain Trade Talks." The substance of Mr. Heeman's address appears on another page. A spirited discussion arose as the address proceeded and Mr. Heeman denounced the track-bidding public elevator owners. Some of the dealers present strongly contended that track bids netted them more than consignments. In reply, Mr. Heeman related instances in which Chicago elevator men had misgraded grain from 5 to 15 cents a bushel lower, and said that the elevator man is always interested in making the grade lower, while the commission man is interested in raising the grade.

Secretary Baxter related instances in which he

had had very unsatisfactory dealings with track bidders.

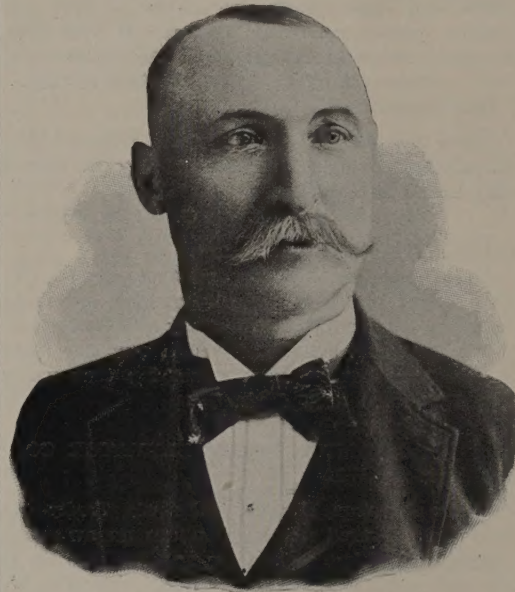
W. H. Chambers, representing the Peavey Grain Company, spoke in behalf of the elevator men, and asked for testimony from shippers if they had not been fairly treated in every instance as to grades and otherwise.

James Parrott asked: "Has the elevator you represent ever been guilty of trying to raise the grade of grain bought by it?"

Mr. Chambers detailed a purchase of wheat in point, in which the grade and price had been raised and invoice sent to the seller at the higher price. He stated that competition alone was sufficient to compel elevator men to do the fair thing.

G. C. McFadden of Havana gave a leaf from his experience as a shipper on track bids and otherwise. He said that as a result of track bids every little buyer was flooded with offers, and the margin of profit was cut to nothing. Losses were incurred through inability to get cars. In a sale to a track bidder, for instance, on ten days, if cars cannot be had and the grain goes down the shipper loses the sale and settles at a sharp penalty. If the grain advances, he gets no corresponding benefit.

E. L. Titus of Steward said that a law was needed



T. P. BAXTER, SECRETARY.

to prevent special railroad rates on grain and that it would not do to stop short with a law against the public elevator men. He cited instances of varying freight rates on Northern Illinois railroads.

The paper of Wm. J. Pope of Chicago on the "Advantages of the New Board of Trade Methods Over the Old," was read by his partner, Wm. N. Eckhardt, Mr. Pope being unable to attend. This paper is printed on another page of this issue.

A. G. Tyng of Peoria read a paper entitled, "The Country Shipper Should Protect the Commission Merchant and Broker to the Extent that He Wishes Them to Protect Him." We reprint this paper on another page.

A paper was read by W. L. Dumont of Decatur. It will appear in our next issue.

C. S. Maguire of Cincinnati addressed the convention on the "Trials and Tribulations of the Commission Merchant," who, he maintained, has no "soft snap," but a hard time and earns all he gets, if he is honest and faithful. He must be a capitalist or have money at his command. Shippers do not appreciate this fact as they should. They ought to give the commission man at least one day's notice before drawing on him.

Then he must be a good judge of grain and should make a kick to the inspector on grades that are rated too low. He there comes in contact with the track buyer, whose interest is directly the opposite of his, and who can sometimes influence the inspector. Besides, the commission man must have a large acquaintance in the trade, so as to get good prices for his grain. Sales depend largely on per-

sonal preference. He should also be familiar with the rules of the Board of Trade of which he is a member, for they may be of the greatest importance in any deal. He must be energetic early and late and must act quickly, in case of a disagreement over inspection, for instance, sending a man out at once to get a sample of the grain before the market closes for the day. He should be familiar, too, with the freight rates from every section with which he is doing business and must check up all freight charges quickly before there is any chance for a controversy.

The commission man must keep well in touch with markets other than his own, and if he is honest he will urge shippers in many instances not to ship, for honesty does pay. The honest commission man will reap the reward of his honesty, and will get shipments from points outside his regular territory, because the shippers will find that they get fair treatment. When brought into contact with unfavorable conditions of competition in selling a shipper's grain, he must do the best he can.

Shippers should try a commission man, and if they find him honest and capable they should stick to him, and if otherwise they should drop him. There are no more dishonest or incompetent grain commission merchants than there are dishonest or incompetent men in any other line of business. Shippers make a great mistake in selling to consumers in their local markets and they should not sell to customers of commission men in their markets.

F. F. Collins of Cincinnati spoke on the "Advantages of 'Jumbo' Weighing Over Other Methods Employed in the Cincinnati Market." The Jumbo Weigher ordinarily runs up and down the track, as desired, takes the grain from the car into the hopper scale and weighs it, and then elevates it back into the car. The Cincinnati committee went to Chicago to investigate, and found that the machine worked perfectly when on level track. This could be arranged, but there was difficulty in getting the railroads centering at Cincinnati interested in putting in the scales. They did not want to go to the additional expense, and besides, they were interested in getting the storage charges. But the Pennsylvania Railroad finally was induced to bring a machine from Chicago. It was placed on a section of level track and the cars were brought to it for weighing.

The arguments in favor of the Jumbo machine were that the grain is weighed immediately on its arrival; that the number of clerks in the shortage claims department can be materially lessened; that by making a charge of \$1 a car for weighing a net revenue to the railroad using the machine is secured, which in time will pay for it, and that the weights being received on 'Change the same day, an invoice goes to the shipper immediately, giving him quick returns and making the market profitable and popular. By this method there is only one dockage possible for shortage or off grade, and that is made at once and for all time. The commission merchants of Cincinnati, said Mr. Collins, want the assistance of the grain trade in getting a general adoption in Cincinnati by the railroads of these weighing machines.

At this point a recess was taken for supper.

The evening session was called to order by President Tyler at 8 o'clock.

J. D. Parrott of St. Louis presented a paper entitled, "Local Shippers Should Recognize the Rights of Brokers and Commission Merchants," which was read by Secretary Baxter.

T. R. Ballard of St. Louis addressed the meeting on "Weighing Grain in St. Louis—With Recommendations." He said that the paramount issue at St. Louis was a correct system of grain weighing, and cited instances in which disputes had arisen over the weights of grain. One Nebraska shipper who for some time had been making irregular shipments, sometimes over and sometimes under weight, put in a new automatic scale. Still the weights were irregular. He finally sent in a car which he claimed contained exactly 600 bushels and said he would not accept any other weight. When weighed in St. Louis the car was found to contain 847 bushels and

a certificate was sent the shipper for 247 bushels more than his claim.

To secure uniform and exact weights a committee of two commission merchants and one traffic manager was appointed by the Exchange. They investigated the systems in use at Baltimore, Milwaukee, Chicago, Cincinnati and Toledo, and decided on patterning their proposed new system after that of Milwaukee. They accordingly drafted an ordinance for the city of St. Louis and a bill for the Legislature to the effect that the Board of Trade shall provide scales and appoint a supervisor of weighing, to inspect and test scales and oversee the assistant weighers, who shall weigh, one at each warehouse or mill. An effort will be made to secure this legislation this winter, and thus put the St. Louis weighing system on a sound basis.

In the absence of S. S. Tanner of Minier who was to have addressed the meeting on the question, "Revision of the Law Governing Public Elevators of Class 'A,'" Secretary Baxter called on President Tyler to speak.

President Tyler announced himself an optimist in this matter, as in all others. He believed that the law was wrong as amended and that the people of the state would settle the matter rightly. Reviewing the history of legislation on this subject, he said that in 1870 the people petitioned the legislature for a law defining elevators, and that the law of 1871 was passed in response to this petition. In 1897 the objectionable amendment was arbitrarily passed. Judge Tuley had decided that public elevator owners could not buy, mix or sell grain, but they secured the passage of the amendment authorizing them to do so and about the same time appealed from Judge Tuley to the Supreme Court. In June, 1898, the Supreme Court sustained Judge Tuley. Immediately a petition was filed with that judge asking for a rule to show cause why the public warehousemen should not be adjudged in contempt of court for violation of the previous injunction. For some unexplained reason the case has not been decided, although over a year has elapsed; but in January next, when the state legislature meets, a measure will be introduced to revise the law, and the Illinois Grain Dealers' Association will be instrumental in bringing this about.

The committee on resolutions, consisting of H. C. Mowry of Forsyth, E. S. Greenleaf of Jacksonville and D. S. Winans of Chicago, presented an appropriate tribute of respect and sympathy on occasion of the death of the following members of the Association:

Mr. Orton, of Spellman & Orton, Lincoln, Ill.
E. E. Davis of Lake City, Ill.
H. S. Nichols of Sadorus, Ill.
G. E. Townley of Indianapolis, Ind.
A. E. Ward of Champaign.

A vote of thanks was extended to the mayor and citizens of Peoria for their kind treatment of the Association.

On motion of H. C. Mowry the executive committee was authorized to look over the constitution and recommend at the June meeting such changes as in their judgment may be necessary.

The matter of storing grain for farmers was brought up by E. L. Titus of Steward. In the discussion which followed the sentiment seemed to prevail that a reasonable storage charge was proper and necessary and that where a competitor stored free he should be reasoned with, failing which he should be allowed to store free—to his own detriment.

The meeting was then adjourned.

PEORIA POINTERS.

How much off for cash?

The mayor's kind offices were not called upon.

The "American Elevator and Grain Trade" was represented by E. M. Pope and John E. Bacon.

The night session had a three round contest with the corn carnival, the latter winning with a solar plexus blow in the early half of the last round.

From the southeast: F. F. Collins of Collins & Co., Cincinnati; C. S. Maguire, of Maguire & Co., Cincinnati; Joe T. Gehring, Indianapolis, Ind., and A. W. Augspurger, Farmer City, Ill., representing

the Cleveland Grain Co., Cleveland, Ohio; F. H. Hedges, representing A. Brandeis & Son, Louisville, Ky.

B. F. Ryer, 11 Traders' building, Chicago, represented the S. Howes Co. of Silver Creek, N. Y., and W. J. Scott, Chicago, the Invincible Grain Cleaner Co., Silver Creek, N. Y.

Jos. P. Griffin, manager of the grain department of the Glucose Sugar Refining Company, Chicago, took a delegation of grain dealers out to visit the company's Peoria plant in the afternoon.

The Peoria Board of Trade was represented at the sessions by B. Warren Jr., of Warren & Co.; P. B. Miles, of P. B. & C. C. Miles; Frank Hall, of Easton & Co., and O. G. Tyng, of Tyng, Hall & Co.

Some literature was distributed explaining the merits of the Ideal Automatic Car Loader, manufactured by C. W. Dooley & Co., Bloomington, Ill., and also the Universal Grain Dump and Elevator, manufactured by J. F. White & Co., Racine, Wis.

St. Louis sent M. M. Pool, representing Daniel P. Byrne & Co.; T. R. Ballard, of Ballard, Messmore & Co.; E. L. Waggoner, representing Brinson-Juda Grain Co.; James Parrott, representing Forrester Bros.; W. J. Rae, representing John E. Hall Commission Co.; W. K. Ewing, representing Morton & Co.

The Chicago delegation included with firms represented: I. P. Rumsey, Rumsey, Lightner & Co.; H. M. Paynter, Milmine, Bodman & Co.; William N. Eckhardt and J. W. Radford, Pope & Eckhardt Co.; A. E. Wood, E. W. Bailey & Co., E. G. Heeman and L. B. Wilson, Ware & Leland; George B. Dewey, Calumet Grain and Elevator Co.; Wallace Armstrong, W. R. Mumford Co.; G. B. Van Ness, Hemmelgarn & Co.; Jos. P. Griffin, the Glucose Sugar Refining Co.; W. H. Chambers, Peavey Grain Co.; B. F. Traxler, Nash, Wright Co.; John F. Howard, Merrill & Lyon; P. A. Stephens, E. W. Wagner; M. S. Bacon and H. H. Newell, Rogers, Bacon & Co.; J. H. Moberly, the Weare Commission Co.; D. H. Winans, Hulbard, Warren & Co.; Albert Seckel, E. Seckel & Co.

The following grain dealers attended: H. C. Mowry, Forsyth; E. W. Crow, Blue Mound; John Fryer, San Jose; B. S. Tyler, F. M. Pratt, Newton Davis, J. S. Wiley, W. L. Dumont, Decatur; T. P. Baxter, Taylorville; E. Roberts, Morton; Thomas Costello, Maroa; J. D. Jenkins, Washington; B. S. Williams, Sheffield; R. J. Railsback, Hopedale; S. S. Tanner, Minier; James Mahan and R. E. Howe, Mansfield; J. B. Carson, Perdue; J. H. Herron, Sidell; E. S. Greenleaf, Jacksonville; Edwin Beggs, Ashland; Frank W. Aldrich, McLean; W. H. Council, Williamsville; Z. W. Graff, Middletown; N. C. Quinn, Kewanee; A. H. Webber, Arrowsmith; E. G. Knight, Monticello; J. P. Woolford, Galton; J. H. Ward, Atlanta; E. W. Holt, Fithian; J. B. Good, Forsyth; G. C. McFadden, Havana; F. M. Cutter, Carthage; J. R. Wagner and S. M. Snyder, Metamora; W. F. Starz, Kenney; Wm. G. West, Washburn; A. E. Hutchinson, Harmon; E. L. Titus, Steward; J. H. Jacobs, Arrowsmith; W. E. Kreider, Tonica; F. L. Ream, Lostant; J. P. Shrearer, Fairbury; H. J. Ruckrigel, Ottawa; Charles Krulands, Roberts; F. N. Rood, La Rose; B. F. Tucker, Morton; John A. Smiley, Watseka; M. S. Merritt, Austin Gibbons and G. S. Hahn, Dwight; J. A. Ellis, Deercreek; W. B. Newbegin, Blue Mound; E. C. Sale, Champaign; Geo. H. Hubbard, Mt. Pulaski; P. A. Felter, Secor; H. L. Schmutz and L. H. Getz, Tremont; J. E. O'Hara, Oarlock; R. W. Noble and T. L. Bone, Bethany; J. M. Davison, Colfax; C. W. Savage, Virginia; J. Fitzpatrick, Peoria; F. J. Kapp, San Jose; Jno. W. Spellman, Lincoln; D. H. Sproul, Vera; Jno. Sipp, Bourbon; W. S. Sturgeon, Elliott.

Marshall Field of Chicago recently sold through his Washington agent 43,000 bushels of wheat to the Tacoma Grain Company. About one-half was of 1898 crop and the balance crop of 1899.

New popcorn is going to market from Kansas and Missouri; prices realized are from 1 to 1½ cents, with 2 to 3 cents for choice. Old corn still brings fancy prices. The new crop is said to be larger than for some years.

[For the "American Elevator and Grain Trade."]

INSURANCE INSPECTION OF ELEVATORS.

We believe the insurance companies are justly entitled to the right to inspect the various risks they may be interested in. Their frequent inspections of elevators and mills should be heartily indorsed, and the dilatory superintendent, or foreman, who neglects his duty of keeping the house over which he has supervision in as clean and orderly condition as is possible under the circumstances—who allows large accumulations of dust to collect on overhead beams and joists and fails to keep his fire-fighting apparatus in good order—will learn sooner or later the danger existing in this kind of neglect, and that he is responsible for the trouble or loss he may cause his employers, the agent who places the line of insurance and the insurance companies which may, because of his neglect, be obliged to cancel their policies. The agent who has to run around in his endeavor to replace the risk, and the employer at times learn that insurance cannot be obtained owing to the disorder and dirty condition in which some houses are kept by careless men. The efficient manager, superintendent or foreman does not allow this condition of things to exist in the plant over which he has control, and the men who work under him soon learn that neglect in respect to not keeping all parts of the building in a clean and presentable condition will not be tolerated.

But we do decry the insurance inspector (inspector in name, but without experience) who visits an elevator, and, discovering dust on the floor from the hard work of cleaning machinery, of unloading cars, etc., throws up his hands in horror and hastens back to his company with the report that the house is in an "awful dirty condition," without taking into consideration the fact—or else is devoid of the knowledge—that there is bound to be a certain amount of dust accumulated in a very short period at a transfer or cleaning house. This individual can be seen at a glance to be a man whose experience in the inspection of elevators is indeed limited, and it need not be said that what he knows about elevators in general would not fill a very large volume if written up. If this same inspector were to make a visit earlier in the day, or at time of starting the machinery, he would undoubtedly be somewhat surprised at the existing conditions in a well-kept elevator—floors clean, dust and debris of the former day's work all removed. If, then, he should make a call later on in the day, or should watch the proceedings for a while, this experience would undoubtedly put a very different aspect on the situation. He would then learn by experience what amount of dust, chaff, etc., can accumulate in a few hours in a busy house from the machines and from unloading cars, and then, if he has any ordinary common horse sense in his head, he would think twice before reporting a house in a dirty condition, and have a little consideration for the elevator men. The efficient and well-informed insurance man who from experience thoroughly understands the working of an elevator can see at a glance if the dust accumulation is of to-day or of yesterday, or if it has been accumulating for weeks or months past. He will then use due consideration to all concerned in making his reports on condition.

We all have to live and learn, but it is hard on the elevator operators and owners, and on insurance agents, also the insurance companies, to be subjected to the vast amount of trouble and annoyance which one of these inexperienced and so-called inspectors can occasion while the said inspectors are learning this one important branch of their duties: How to inspect an elevator, or what constitutes an inspection of one.

It would undoubtedly be a good idea for the insurance companies to make arrangements with the manager of some cleaning house to take their bright and intellectual students of underwriting and give them a thorough drilling in the elevator, so that they would get sufficient knowledge to inspect an elevator properly. This valuable tuition

would enable them in the near future to be in a position to survey an elevator and judge of the vast interests therein in a just and impartial manner.

The Chicago Underwriters' Association has delegated one inspector from its large and experienced corps—a man who thoroughly understands his business—to inspect solely the mills and elevators in Cook County, and the reliability of the reports which are issued monthly to all insurance companies and agents cannot be questioned.

RECIPROCAL RELATIONS.

[From a paper on "Reciprocal Relations between Shippers and Commission Merchants," read by J. W. Radford, Chicago, at the meeting of the Illinois Grain Dealers' Association held at Peoria on October 11, 1900.]

A number of years ago, when the idea of reciprocity was proposed between this country and the Pan-American states, the people generally awoke to the fact that the reciprocal exchange of commodities was of mutual benefit. I am of the opinion that this same principle of reciprocity applied between the grain shipper and commission man would be mutually beneficial. Looking at this matter in a fair and candid manner, what has the commission man to offer the shipper? In the first place, one of the most important factors in all business transactions is confidence, and this confidence should be mutual. This confidence does exist to a large extent between the shipper and commission man, but the value and worth of it should be appreciated more than it is. The commission man is your representative. The only interest he can have in any transaction is yours. Can this be said of the track buyer?

Primarily the track buyer's interest is not the shipper's, and the condition arising from the difference in grades, time of shipment, surplus or deficiency in amount shipped, and other details, put the track buyer in a position where his profits may be increased at the expense of the shipper. From personal observation I have found that many shippers expect to be "touched" on all off-grade stuff, and some of the methods employed are truly scientific.

The commission man expends a liberal amount of time, talent and money for market information that his customer may have intelligent and prompt information concerning trade matters. What does the postal card merchant do along these lines? The commission man stands ready to render financial assistance. How about the other fellow? I would not contend that at all times and under all conditions the shipper can consign his grain, but there is no question but that most of the time his interest would be better protected by a competent commission house if he were inclined to give it the opportunity. The trials and tribulations of the shipper with the postal card merchant are at times of such an aggravating nature that correspondence cannot work out a settlement, but compel the shipper to leave his business, contribute his hard-earned "shekels" to the railroad company for transportation to work out his own salvation. Finally he returns home with anything but satisfaction, forgetting to charge up the wear and tear, railroad fare and incidentals where they properly belong. How many shippers have considered these items of expense, loss by absence from regular business, etc., when comparing the supposed profits of the card bids as against the services rendered by a competent commission man; and how many more of you have turned to the commission man with these same trials for advice and help?

Another point suggested by reading the by-laws, etc., of this association. Did it ever occur to you that they are of the "jug handle" order; that they undertake to lay down what the commission man can and shall do, but on the other hand, do not bind the shipper to do anything? No reciprocity in that. Is it not a fact that where the shipper depends wholly on the postal card for a market he unconsciously becomes a dependent on someone else, and fails to develop the faculties that are necessary to become a successful merchant? A thoughtful consideration of these matters will inevitably result in good, not only to yourselves, but

to all who have the best interest of the grain trade at heart. Try a competent and successful commission man. It is worth something to do business with successful people.

ANDREW WEIS.

The man who takes the grain directly from the farmer is the backbone of the grain business. The farmer himself will never to any material extent be his own shipper. Handling grain on its way from the producer to the ultimate consumer is a part of the economic productive process that requires the services of the expert in order that it may be done with the least possible expense and commercial friction, and the special knowledge required the producer is not as a rule in a position to acquire. This expert knowledge must be the equipment of the man at the elevator; and the story of his training must to elevator men be always a matter of interest.

Andrew Weis of Buffalo Center, Iowa, is still, in a way, in training in the science of buying and forwarding grain, and yet he is a man of no little experience in the grain business, both as employee and as elevator manager.

Born at Appleton, Wis., on September 1, 1863, at three years of age he was taken to Minnesota, where his father settled at Birch Cooley, Renville County, on a farm near the famous Birch Cooley battleground of 1862, during the Sioux outbreak. He was educated in the schools of Wisconsin and Minnesota, and then went back to the farm until 1891. He was at that time owner of a fine farm



ANDREW WEIS.

of 200 acres with good buildings; but tiring of farming alone, he rented his land and went to work in a general store in Morton, Minn., three miles from his farm. In 1894 he went into the grain business by taking charge of an elevator at Albany, Minn., for the Interstate Grain Company of Minneapolis, from which, in 1896, he went to Wahpeton, N. D., to manage a steam elevator for Andrews & Sage of Minneapolis. The crop being a poor one, however, this house was closed early in the spring, and Mr. Weis took a vacation of a few months, spending most of his time in Milwaukee and Chicago.

After one season as salesman of harvesters for the Deering Company, he took charge of the elevator at Clara City, Minn., for the St. Anthony & Dakota Elevator Company, from which, in the fall of 1899, he returned to Albany, Minn., as manager for the Albany Grain Growers' Association, remaining one year.

All this time he had been handling small grain only. Feeling that this was but a one-sided education, he resigned at the end of his Albany engagement and went to Buffalo Center, Iowa, where on September 10 last he accepted a position with E. R. Anderson. Here he will have an opportunity to familiarize himself with the coarse grains, and so complete his education as a thorough grain man with practical knowledge of all the grains handled in the Northwest.

One of the trials of the pea harvester is the pea louse. During the late harvest a crew of a thousand pickers at work near Manitowoc, Wis., were literally driven from the fields by the "varmints" until a rain came to their relief.

SUGGESTIONS APROPOS THE GOVERNMENT REPORT.

Learning that Mr. H. S. Grimes of Portsmouth, Ohio, president of the Ohio Grain Dealers' Association, had given the matter of government reports some considerable study, and wishing to give the readers of the "American Elevator and Grain Trade" the benefit of his views on the subject, we asked him for an interview, which he very kindly consented to give us. The features of the talk are as follows, particular attention being called to his suggestions pointing to an improvement of the government method:

"The United States Department of Agriculture is no doubt considered by interested parties as being almost a perfect means of getting such statistics as they may desire for future reference, and while I will admit that the department, as controlled by Hon. John Hyde, statistician, is far superior to any other means of gaining statistics that we now have, it is lacking in accuracy. This I think Mr. Hyde will concede, and the reasons are very easily given.

"The department has correspondents scattered over the entire United States. These correspondents, as a general rule, do not correspond directly with the statistician at Washington, but through the state agricultural bureaus. They are usually correspondents of the state agricultural bureaus, not of the United States Department of Agriculture, although they are recognized as the latter. These correspondents are volunteers. If there are any paid ones among them, I am unaware of it.

"To illustrate: A correspondent is stationed in a locality where he has access to quite a number of farmers. He gains his information, not by actual observation, but by inquiring of the numerous farmers whom he may meet. He runs across Mr. Jones, and says: 'Mr. Jones, how are crops in your section of the country?' Mr. Jones replies that they are 'very bad' or 'very good,' as the case may be, or as he thinks the case may be. Frequently Mr. Jones confines himself to his own farm, not taking into consideration neighbors near by him. Then he meets Mr. Smith, who is from an entirely different locality, and gets his information, either good or bad. He interviews another farmer in a different locality and that farmer will say to him that 'the flies are damaging our wheat very bad.' Another farmer, an immediate neighbor to the one who has the fly, will tell him 'there is no fly in the wheat.' He sits down at his desk, and writes a letter to the state department, using his own judgment and guessing, as it were, at the situation. The state department forwards his statement to the U. S. Department. By this means we get what statistics we receive from the U. S. Department of Agriculture. This method of receiving reports as to grain is used for every other farm product.

"You can readily see that there is now no possibility of a fair estimate being made upon conditions as they actually exist. The government of the United States spends several hundred thousand dollars each year in securing the statistics given to its people. If it would use the proper means of gaining these statistics, so that they would be accurate, or as nearly so as anyone could possibly get them, it would be necessary to employ paid statisticians whose duty it would be to report either through the state officials direct or directly to the United States statistician.

"I look at the matter this way: If a thing is worth doing, it is worth doing well, and where so many hundreds of thousands of people are anticipating correct reports from the government of the United States, the government owes it to them to give correct reports.

"There are quite a number of states in the United States that do not cut any figure as to the general average of farm products. In those states there would be no necessity of any investigation. But if in our real agricultural states an employee of the government were put in every one to three counties, as might be necessary, and kept diligently at work from one year's end to another gathering personally the data for making his reports, then the people could depend upon what they got from

the government as authentic. If a farmer tells him there is fly in his wheat, he is on the ground to make the examination; if he says to him, the rust is killing my grain, he is there personally to examine it. The same method would apply to all farm products. A personal investigation would be made from week to week from the time the seed is in the ground until harvest. Then when we got a government report, it would not be necessary to look any further to be assured that we were getting something that was perfectly reliable.

"The adoption of this method on the part of our government would be, in my opinion, in the long run, no more expensive than is the method by which so-called conditions are estimated at the present time, and I think the "American Elevator and Grain Trade" will agree with me perfectly in saying it could not help being a more perfect system of gathering statistics and one that could be more relied upon than the present system.

"It is a well-known fact that, as a general rule, government employes are carefully considered previous to their employment; that they are reliable is beyond question, and, in a case like this, there would be no one bold enough to dispute the reports that we would receive from their hands.

"The situation is just this: If we are to have government reports, let us have them of a character that can be relied upon, or else abandon them altogether. It would be much better not to have reports at all than to get the reports that we now get, for the simple reason that they cannot be called reliable. This has been demonstrated very clearly in the past year by the very great conflict between private and government reports.

"I hope the "American Elevator and Grain Trade" will endeavor to get this matter before the public in such shape that we may have expressions from other journals that are interested. It may eventually come to such an issue that there will be such attention given it by the government as will result in carrying out a scheme that will assure us of reports that can be relied upon.

"I had almost forgotten to mention in this connection that the government does have some few traveling statisticians, who, no doubt, are a great benefit in a general way, but the principal reliance in securing its reports is, as I have heretofore stated to you, on the local volunteer correspondents."

THE NEW CHURCHILL ELEVATOR AT BUFFALO.

A contract of more than ordinary interest has just been let to the Macdonald Engineering Company, Chicago, for the erection of the Lake Shore & Michigan Southern Railway Transfer Elevator, Buffalo, N. Y., by Churchill & Co., of Chicago.

Myron Churchill is the pioneer of fireproof construction for grain storage in this country, as most of our readers are aware, by the interest created in the subject a few years ago, when at the head of Churchill, Coon & Co., Toledo, Ohio, he built the first storage tanks and elevator plant erected of steel. This effort demonstrated the advisability and desirability of steel as a material for the construction of grain bins, both for preservation and from the insurance standpoint. The tank system, which was practically started with this plant, has since been widely adopted, and millions of bushels of this country's grain are now housed in steel walls, secure alike from fire and vermin.

The tank system, however, for a rapid-handling house, where small parcels and different varieties of grain are handled, does not fully meet the requirements, on account of the large storage space contained in each individual tank and the difficulty of always keeping it employed. The loss of ground space between a number of assembled tanks, as well as the flat bottom feature of each, is also objectionable. Much labor and extra expense is required for shoveling out the residue of grain, which will not run of its own gravity when the tanks are emptied.

Nearly two years ago the Macdonald Engineering Company built for the American Malting Company in this city a storage elevator in steel which over-

came these difficulties, giving about fifteen bins per thousand bushels of storage, and completely utilizing all the ground space covered.

After a careful canvass of the several plans offered, Mr. Churchill pronounced the Macdonald plan the only practicable working elevator in steel which has yet been developed, and the contract was promptly awarded to the Macdonald Engineering Company at their price, \$100,000. The house will have a handling capacity of 150 cars in ten hours; be driven by electric power from Niagara, and be equipped with a full line of cleaning and clipping machinery, all housed in perfectly fireproof construction. This system, which has been patented by Mr. James Macdonald in the United States, Canada and the principal foreign countries, is applicable to the small country station elevator, as well as to the million-bushel terminal house.

It looks as if the earnest efforts which are now being made by elevator builders and owners in this direction will result in the evolution of a more permanent, economical and better building for the protection and storage of grain than the present wooden construction now offers.

PILING KANSAS WHEAT ON THE GROUND.

During the car blockade at Kansas City in August, the rush of wheat to market was so great that



WHEAT PILED ON THE GROUND AT LA CROSSE, KAN.

elevator men were not only forced to fill their houses with wheat to the eaves, but were compelled to pile the grain on the ground outside until the railroads could supply cars to move it. Never in the history of Kansas, it is said, did a similar condition prevail, when the railroads were for weeks absolutely unable to handle the grain offered. The Missouri Pacific was said to be the worst off for cars, at least along that line the spectacle of great mounds of wheat along the railway tracks as shown by the accompanying picture was more common than on other lines, although none of the railroads were without it.

The illustration shows a mound of wheat on the grounds adjoining the elevator of the La Crosse Grain and Lumber Company of La Crosse, Kan. This station has four elevators, each of which holds from 5,000 to 10,000 bushels, and every foot of space in them was packed with grain. When its elevator was filled, the La Crosse Grain and Lumber Company unloaded wheat from farm wagons on the open prairie back of its elevator, which holds 10,000 bushels. The pile when photographed had about 10,000 bushels in it and farmers unloaded on it for some time after.

These grain heaps were not covered to protect the wheat from the sun or rain. The buyers say that rain does not hurt the wheat; for the water does not soak in more than an inch and the grain dries out in a few hours when the sun comes out again.

Send us the elevator and grain news.

GRAIN TALKS.

[A paper by E. G. Heeman, read at the meeting of the Illinois Grain Dealers' Association held at Peoria, on October 11, 1900.]

The subject, I naturally infer, was assigned to me to explain to you more fully my object in publishing and distributing these booklets. I take it for granted all, or the most of you, have received and read "Grain Trade Talks," so I will not dwell upon the previous numbers, excepting to say that up to date I have issued four of these "Talks" and that over 30,000 of each number have been distributed. It was my intention to place copies in the hands of every regular grain dealer, miller and trader in this country and throughout Canada, and if there is anyone who has not received them it is because I did not have his name. They have met with a wonderful demand, many persons writing for additional copies. I have even had inquiries from foreign countries, from England, Ireland, France and Switzerland. Requests for from 100 to 500 copies for distribution came with the first issue from Milwaukee, Minneapolis, Duluth, St. Louis, Detroit, Indianapolis, Cincinnati, Toledo and eastern commission houses, which were repeated and increased with each later number, all of which was very gratifying and gave me encouragement, as I felt quite sure then the course being pursued and the object intended were meeting with approval.

In each number I endeavored to cover fully the particular subject or evil dwelt upon. Evils—yes, and I will add, I do not believe there is a business in which so many evils exist or where so many opportunities present themselves to take unfair advantages as in the grain trade. For instance, in the very beginning, careless, sometimes intentional misgrading, which a commission man would soon have rectified. Then next come unreasonable discounts on off grades, wherein lie the greatest opportunities, and, in fact, the principal source of profit the elevator man figures upon when making you such apparently attractive bids. Short weights is another great evil you have to contend with, but to a great extent this has been remedied, not, however, through any effort or willingness of the elevator man. You can thank the Illinois and other grain dealers' associations and the commission men for this, for you will all remember the fight we had on our hands some years ago in Chicago before official board of trade weights were agreed to, especially at some of the local industries.

I would like to tell you all about what I consider is the greatest evil of all, "The Elevator Monopoly," but as that is to be the subject of my next booklet, I will not say much about it at this time; though I will attempt to show, in "Grain Trade Talks No. 5," the downright rottenness of the elevator business as conducted in Chicago, which is getting to be the greatest and most dangerous trust in existence. When all their tactics, schemes before and after getting possession of the grain and unfair and illegitimate business methods are collected and compiled together, it will make such interesting reading that I know you will appreciate it much more than if I should only touch upon the matter here.

My object in sending out "Grain Trade Talks" was to help place the grain business on a plane where everyone will have an equal chance, but not until the elevator monopoly is crushed out of existence will this be possible. We commission men can accomplish but little without your assistance. I could never understand why so many of the country shippers have shown a disposition to encourage or persisted in dealing with any one of the elevator men. They will at no time—at least, they never have done anything that could be construed as being for the interest of the country shipper, they are doing the very opposite whenever there is an opportunity. Your only and true friend is the commission man. Who posts you about the markets? Who gives you his honest opinion or advice? Who looks after your every interest when your grain reaches the terminal market? Certainly not the elevator man. What a grand market we would have in Chicago if it was an open market as of old, with every car of grain being competed for by hundreds of shippers, instead of be-

ing at the mercy of one buyer on some roads, as is often the case now with certain kinds or grades of grain. For this we can thank the railroads on which the certain elevator or elevators are located. If you will discontinue selling to the elevator men, you will help us to a considerable extent to drive them out of business. However, it is the intention to ask for the repeal of the present elevator law by the next legislature, and in this we want your assistance.

I make this prediction, that if you continue to patronize or support this elevator combine, it is only a question of time, and probably a very short time, possibly only a few years more, until you will either be forced out of the grain business entirely, or you will be working for so much per day or month for one of these pretended friends of yours, the elevator men. Take my advice, select some good commission house and ship it all your grain. If you do not care to take the risk of consigning it, any one of them will place it for you to arrive, and I know that after you have tried this plan for three, six or twelve months, you will find you have made more dollars net, not cents, or fractions of cents, "figured from the back of a postal card," and by ignoring these baits, or postal card bids, you will give encouragement to the commission men to work all the harder for you.

FIRE PROTECTION.

Fires will occur even in the best regulated plants, and from a number of causes, which we will not specify at present. And fires always take place when they are least expected; and this fact makes it entirely appropriate for us to try to impress upon the reader the necessity of being well prepared to meet this emergency at any and all times.

If fire is discovered in an elevator or mill it can be quenched more easily in its incipency if the fire apparatus is at hand and in regulation order, but in this case if valuable moments are lost, owing to the fact that the fire fighting apparatus is not found in the place designated for it, or it is not in a serviceable condition and cannot be of use at the precise time it should be, the flames may gain such headway that nothing will stop them until the plant is totally destroyed. The fire apparatus should at all times be in a serviceable condition for use and neglect of this very important feature may result in a severe loss to all concerned—hose should always be connected to hydrants or standpipes and nozzles should be attached to the hose; axes should be in the places designated for them; water barrels should be well filled and the very necessary fire pails should be in close proximity to them. Chemical extinguishers also should be in good order. In a great many instances it has been found that hose was disconnected, nozzles were missings, water barrels were nearly empty, and fire pails were conspicuous by their absence; while the chemical apparatus was corroded and the faucets screwed too tight.

As the cold weather approaches we would advise that all apparatus be overhauled. Water barrels will undoubtedly need refilling, owing to their contents having evaporated to a more or less extent during the warm weather. At the same time it would be in order to brine, or salt, the water of each to prevent its freezing, but even this precaution does not wholly prevent ice from forming in the barrels if they do not receive proper attention. Wherefore we would advise that employes on each floor should be instructed to take a stout stick and stir up the contents of each barrel daily. This will prevent the salt from settling at the bottom and the water at the top from freezing. This precaution is taken in lumber yards, where the water barrels are exposed to the open air, and has been successful in all respects. All barrels should be provided with covers.

Another element of danger which the cold weather will bring forth is the steam heating apparatus. All steam pipes and coils should be carefully looked over prior to the steam being turned on; and it should not be allowed in any instance to come in contact with the woodwork—all dust should be removed from the pipes and coil, which should be kept clean. Cleanliness is "next to godliness," and

those who handle the staff of life should take care that no dust is allowed to accumulate, as, in the event of fire, dust at times can cause more damage than a conflagration and also a greater possible loss of life.

Superintendents and foremen, by giving these matters due attention, and carefully following out the simple instructions contained therein, can build up a reputation for themselves and the plant over which they have supervision, which cannot fail to raise them in the estimation of their employers and the fire underwriters.

THE ADVANTAGES OF THE NEW BOARD OF TRADE METHODS OVER THE OLD.

[A paper by Wm. J. Pope of Pope & Eckhardt Company of Chicago, read at the meeting of the Illinois Grain Dealers' Association held at Peoria, Ill., on October 11, 1900.]

In speaking to the question, "Advantages of the New Board of Trade Methods Over the Old," I shall assume that your committee intended that the recent shortening of trade terms should be chiefly considered; and will confine my remarks to that branch of the subject, though there are other "new methods"—as the recent expulsion of some members and the suspension of others from the Board declare.

We can better understand the necessity for the remedy if we are fully informed as to the disease, and can bear more cheerfully the bands of restraining enactments if we recognize the evils they are intended to suppress or regulate. Let us, therefore, consider for a moment the conditions attendant upon the business of the Chicago Board when these new rules were adopted—conditions, alas, that still too extensively burden trade.

Prior to the panic period of 1893 to 1896, inclusive, the business of "hedging" in the Chicago market all grain owned anywhere, and of straight, simon-pure short selling, had assumed enormous proportions and threatened at times to destroy values and paralyze trade; but in the panic period named, it reached the climax of its full flower. No. 2 wheat was pushed to 50 cents in 1894; No. 2 corn to 19½ cents, and No. 2 oats to 14½ in 1896. In this same year, 1896, when there was no particular money pressure, mess pork sold in Chicago market at \$5.50 per barrel, prime lard at \$3.05, and short rib sides at \$3.05 per hundred pounds. The bears held high carnival and "there was a sound of revelry" by day as well as night. Individual dry goods men who never handled a bushel of actual grain hammered the market with ten to fifteen millions of short wheat (and other commodities in proportion), with a nonchalance and braggadocio worthy of a brassy toot at a crooked horserace. The man who owned any grain was shunned by the banker and pitied by the public. It was at this time that a few men began to see "the beginning of the end," unless some measures were planned to curb the abuses then so widespread and arrogantly assertive; and the labors of these thoughtful men are but partly expressed in the new rules of the Board, now under consideration.

The Chicago market has for years past been considered the thermometer of grain values—for the wide, wide world. Can any system be a wise one that permits any and all persons, at any and all seasons, to pile ice, in unlimited quantities and practically with full immunity, upon the bulb of the thermometer, while the uninitiated wonders that the mercury does not rise—or prices advance? The natural ice around that bulb is sufficient for practical purposes; the rules seek to keep some of the artificial ice away from it, and to give the buyer a more equitable and somewhat nearer even chance with the seller.

Think for a moment what the Chicago market has to carry. The traveling drummer, from cigars to thrashing machines, sees the new spring wheat peeping through the ground in April, and sells from ten to twenty-five thousand for July, so as to "get in early." He writes to the newspapers and tells everyone he meets of the big acreage and

fine crop promise. He advises every listener to sell it short, and makes many converts. Then, as the crop gets a little more forward, the country dealer sells it freely for future delivery; and the city dealer, learning all this, takes his "wreck" at it on a larger scale, and the chronic professional bear "lets it go" every day in quantities to suit, until, before the crop is actually harvested, it has all been sold twice over by men who never raise, and perhaps never owned, a bushel of actual wheat.

The same process follows with the winter wheat crop; and the tentacles of this tarantula reach out for and embrace the crops of all grain, flaxseed, etc.

Further, in a semi-legitimate way, the ice is piled on the well-watched bulb. The dealers from the middle West to the foothills of the Rockies have been made afraid to father ownership in unhedged grain longer than over night. The grower comes in from the farm and contracts his grain to the dealer, who sells an equal quantity for some future at Chicago, or accepts a track bid from some buyer, who usually sells two bushels ahead in Chicago for every one he buys in the country, and then yelps about his large country acceptances, taking good care that every yelp is published by the city press. Every bushel owned by every elevator man is sold for some future in Chicago. Any other attitude would invoke derision from their fraternity.

Practically all the grain bought by the numerous grain companies in the Northwest and Southwest, at St. Louis, Toledo, Cleveland, Buffalo, etc., etc., is sold for future delivery (that is, hedged) in Chicago. Nearly all the grain shipped from Chicago by exporters is hedged by sales of Chicago futures, until the actual grain shipped is sold to the foreign consumer. Thus practically all the grain in transit from the farmers' fields to the station, in transit on the rails, the lake or canal, or afloat on the sea, beside all that is held in city elevators and most of that stored in country elevators, is hurled at the Chicago market and dumped there. Add to this the unlimited and unknown quantity of "wind" grain that represents nothing but the will and whim of the seller (one party alone last October had 10,000,000 bushels of such wheat on the market at one time), and then ask yourselves if something should not be done to protect that too-much assailed "bulb."

Contemplate for a moment this rushing volume of selling, with its wind or cyclone attachment, and then ask yourselves, from whence come the buyers? Who can be found to buy it all?

That became a grave question in 1896, and it is a serious one to-day. Unless something is done to put the buyer on an equitable basis (as he has not been) with the seller, he, the buyer, must ere long become extinct. To defend this long-suffering buyer and to secure for him a fair show and, if possible, "equal rights," these new rules were introduced. Hitherto the speculative trading centered in four different futures—May, July, September and December, each year. The premium on wheat from May to July and July to September has averaged 2¼ cents for each period; from September to December, 3 cents, and from December to May again, 4½ cents per bushel, say 12 cents per bushel per annum. In 1893, these premiums amounted to more than 20 cents per bushel on wheat. At this rate, for two years and a half, the short seller would collect enough money on wind sales, to own the actual holders' wheat, at the price made in 1894, of 50 cents.

What do you think of a system like the old long four-term one, that permits a short seller to claim the benefits that accrue to the elevator man for storage, to the banker for interest, and to the underwriter for insurance; and not only to claim them all, but to collect them all, without rendering the service of either or any service whatever?

A fairly well authenticated story is told of a New York man who lived in idleness but made \$20,000 per year by collecting a toll of 10 cents per bushel net yearly by a short sale of 200,000 bushels of wheat in the Chicago market, changed

over from term to term and from year to year, through several years, with the price lower at the finish than when he started. Many others have done the same thing, both on a smaller and a larger scale. What show has an ordinary buyer against such a system?

It is estimated that the Chicago market carries in purchases for one future or another, at times, 50,000,000 bushels more grain than is actually in store there. Most of this 50,000,000-bushel excess has nothing back of it but—nerve. If 10 cents per bushel were collected upon this excess quantity, we find the buyers paying \$5,000,000 annually for nothing—for worse than nothing, as under the system they are furnishing the enemy with sinews of war in a combat at once unfair and unequal. There probably never was, or ever will be, any scheme devised by the mind of man better suited to chloroform, deceive and fleece the buyer of any commodity than the one so long in use here as applied to futures in grain. Not that grain might not be, and should always be, just as legitimate a purchase and quite as attractive to the investor as salt, sugar, hides or houses, factories or farms. But, unfortunately, under the old system, the lever of capital was rarely ever applied to purchases. The speculative buying has been for some "future," and as the delivery day approached, the Chicago broker would appeal for instructions as to "what to do with it," and invariably advised the customer to "change it over" to some more deferred future, paying, of course, a smart premium for the privilege. Neither the customer or the broker ever thought of paying for what they had first bought, though the local banker would cheerfully advance the necessary funds at low rates, and though the cost of carrying the grain when paid for in a manly way, would amount to less than might and would be paid to some short seller for extending what under a proper system might be a "pinched" or defaulted contract.

The new rules aim at some abridgement, at least, of this exploded boot-strap policy. If men can be helped to see that it is wise to pay for the wheat they buy, especially if they wish to promote its value, then this preliminary work of the Board is worthy of commendation. It has the effect of increasing the number of holders of the grain in store here. Formerly a few men "carried" all the wheat here, against sales for future delivery; and when shippers or exporters wanted cargo lots, these carriers often exacted a large premium over the quoted price for the grain they were thus holding, and legitimate traders were frequently squeezed in this way. Further, these carriers, as each delivery day approached, announced on the floor of the exchange and in the public prints that they would deliver millions upon millions of grain on the first delivery day following, with shrewd suggestions and hints as to the havoc such deliveries would cause in the market. The receipts were assorted as to expiring storage on the day of delivering to create all the havoc possible, and the suffering public would again pay enormous premiums to have the grain carried to the next term. The new rules for shorter terms have caused many buyers to pay for grain as delivered and carry it themselves. The number of owners and holders of actual grain has greatly increased; and since the application of the new rules the premium from month to month on wheat has not exceeded $\frac{3}{4}$ cent per bushel or 9 cents per year, against a former average charge of 12 cents per annum. This amounts to a large sum, and for this alone the change should be commended. Shippers can now buy cargo lots with ease and at the fair market. A greater disintegration of the old harmful methods will follow.

However, I regard the new rules as but stepping stones to better things—to a still higher standard. Personally (and I am now speaking for myself only), I believe that the only correct basis for the trading in grain is the cash basis. All grain sold should be delivered within twenty-four hours of the time of its sale, and all trading in futures should be abandoned; in fact, prohibited by the rules of every commercial organization in the United States. This change should come about,

not by legal enactment or officious legislation, but as the result and determination of the good sound sense of the men engaged in the business.

If all trading were made upon the cash basis, then the seller and the buyer would be upon the same level. It would not be possible for the short seller to collect large premiums upon sales for future delivery, implying the carrying of grain when no carrying was done. Under the present system, if the market should advance 10 cents per bushel in a year the short seller would not be a loser, because he would have collected that sum in premiums. Under the cash system, however, if the market advanced 10 cents per bushel and the short seller kept the trade open that long, he would lose 10 cents per bushel, and the present peculiar privilege which he enjoys, as against the buyer, would be taken away.

Further, if all the trading was done upon the cash basis, the utmost amount of storage that the buyer would have to pay would be the amount earned upon the actual quantity of grain in store at Chicago, while, under the present system, as I have already attempted to show, the buyer frequently pays the equivalent of storage, interest and insurance upon forty to fifty million bushels of grain in excess of the actual quantity here.

Time will not permit, nor space allow, the argument that could readily be made to show that on no other basis, except that of trading in cash grain, can the buyer and the seller in the Chicago market be put upon a fair and equal standard. There only remains, perhaps, to be said, that the short seller would not be restrained as to quantity, nor would he be denied anything as to facility for the exercise of his privileges to the fullest degree. If he wanted to sell a million bushels of grain in a minute, he could do so at the market price and borrow the grain for delivery from any holder, who would be very ready to lend it to him, because, while the grain was loaned, the accruing storage for that period would be saved to the original owner.

Again, in making large sales on the cash basis, very frequently the buyer and the seller, no doubt, could agree to have the grain subject to call on the part of the buyer, or to delivery at the pleasure of the seller, but the price would be the cash price, and no premiums would inure to the benefit of the seller.

If anyone has the least doubt that such a system would in any way embarrass the short seller or abridge his privileges, he has but to look at the New York Stock Exchange (where the cash system applies in the delivery of all securities sold) to satisfy himself that the short seller would have under such a system every facility that he could reasonably demand.

Now, as to the interior grain dealer, as represented in this body, there are many phases of this matter to be considered. I will admit at once that perhaps there would be some disadvantage to you in being denied the privilege of storing oats and selling them for May delivery at such premiums as have been for years current, but the advantages on the other hand greatly outweigh this small item. As to the cribbing of corn and the selling of same for May delivery, it is fast becoming unprofitable and out of date. The prices that are paid for corn for winter shipment and consumption, have become relatively so close to the price of May corn that the cribbing of corn and the selling of the same for May delivery at the same time are almost impossible. There would be nothing in the new plan that would prevent any good grain merchant from buying and cribbing ear corn at any time that he considered the price attractive, and the quality sufficiently good. Indeed, if the business of the great grain markets of the Union were transacted upon the cash basis, I have no doubt that the merchandising in grain on the part of the interior dealer would become more general than it has been of late. Under the present system, nearly all the dealers are simply "scalpers." The grain is often sold before it is bought, and if not, then immediately after for a profit of $\frac{1}{2}$ or 1 cent per bushel, and is disposed of in a "touch and go" way, as though it was

something to be afraid of; and if handled at all, in a timid, gingerly fashion, with apologies to the respectable public.

This feeling has come about because of the low status that has been established in the great centers under the old rules, when the results of indiscriminate short selling have produced the sad effects hereinbefore mentioned. Such a basis of trading as I have suggested would not in the least interfere with the system of track bidding at 10, 20 or 30 days' shipment, or of the buying of property at the cash price from the dealer with the grant to him of any reasonable time for its actual delivery.

The best thought of the Chicago Board of Trade is centered toward the promotion of the legitimate grain trade; and I feel very sure that none of its officials would sanction any measures calculated to do other than benefit this important interest. If at any time the Chicago market reached a price for any given grain that seemed attractive to the holder of like grain in the country, and he wished to make a sale of his holdings, he could readily do so by ordering his correspondent at Chicago to sell such a quantity of grain; the sale could be made and a stipulation made with the buyer as to time for delivery, or the quantity sold could be borrowed upon the Chicago market and delivered upon the sale, and the amount borrowed could be returned from the grain actually shipped to fill the original sale. There would not be any interference whatever in the freedom of business, and the material change would be the taking away of false premiums and the abolition of the payment of enormous sums yearly for the carrying of grain that is never carried.

Lastly, it is your duty to consider this matter from the standpoint of the agriculturist—the grower. It is a true saying that agriculture is the basis of prosperity in this country. When prices were depressed to the low figures mentioned in the years 1894 and 1896, the majority of farms throughout the West were plastered with mortgages, and the owners under their trials had become Populists and were apparently ready to take the next step into anarchy if their burdens were not relieved.

With the better prices for grain, the mortgages have been annulled. The farmer has thriven, and the benefits accruing to you are shown in the easier money market in your respective towns, and perhaps also in the good stiff balances that the average farmer leaves at his credit with you, without interest and without price. This agriculturist is entitled to your support for the destruction of any system that interferes with his rights. That far you certainly all can go, if no further.

In closing I may mention another new method secured by the Chicago Board of Trade; that is, the change in the plan of calculating extra storage upon grain. Instead of $\frac{1}{4}$ cent per bushel for each ten days or part thereof, the rate now is 1-40 cent per day, and while the annual charge is not changed, the new system works greatly to the benefit of the cash buyer. Under the old method, the buyer might have delivered to him on the afternoon of any business day a quantity of grain upon which the extra storage would expire on the day of delivery, so that if he desired to put the grain upon the market the next day, he would be saddled with a loss of $\frac{1}{4}$ cent per bushel for storage alone, or, say, \$12.50 upon each 5,000 bushels. Under the new and better plan, the most that a buyer could lose under exactly similar conditions would be \$1.25.

The rate of storage, however, is still too high, and a further mild reduction is promised; but I can see no reason why the rate of storage in Chicago should be more than 1-60 cent per day, equal to 6 cents per year, the rate now voluntarily accepted at Duluth. In my opinion, the time is not far distant when the rate of storage at Chicago will not exceed 3 cents per year, when all grain business will be done upon the cash basis, when the buyer and the seller will have equal rights, and when those engaged in the grain business, both by the public and the press will no longer be regarded as possible gamblers, but as

reputable and intelligent merchants, commanding and receiving the respect of the financial, commercial and social world. To the accomplishment of this desired end, it is my duty and yours equally to labor until we herald the dawn of that glad and desirable day.

THE SHIPPER AND THE COMMISSION MAN.

[Paper by O. G. Tyng, Peoria, read before the meeting of the Illinois Grain Dealers' Association at Peoria, on October 11, 1900.]

I have been asked by your president to speak upon the subject that "The Country Shipper Should Protect the Commission Merchants to the Extent that He Wishes Them to Protect Him." It is an old saying that "Self-preservation is the first law of nature." It is also true that self-interest is so germane to self-preservation as to be almost identical with it. The interest of every grain shipper is to obtain the greatest profit from his shipments, and the question too often is narrowed down to the matter of a profit of a single or occasional shipment and the broad principle, which is more important, the annual profit on the business of the year when all transactions are closed and differences paid, is entirely overlooked. It is merely a question of profit and loss, not one of sentiment; as, if it is a fact that, taking all conditions under consideration, from a broad standpoint, the grain shipper realizes more actual money by selling direct to consumers or elevator buyers than by doing business through the regular grain houses, the business will be done this way to a greater extent each year.

You might as well try to force water to run up hill as to try to stop it. If it is a progression of business that means economy in the handling of grain which is merely a step in the modern business methods, which practically is the survival of the fittest, it certainly will prevail. The important question before us, however, is, is this the case? When the proprietors or operators of elevators or manufacturers of grain products make bids on grain to grain shippers based on prices at track stations, they do not do this from motives of philanthropy, but because they expect to buy their grain cheaper than they could in their respective markets, not possibly in single cases, but in the average of years of business. They must do this, as the expense of making bids both by mail and wire, as well as the employment of extra force, both clerical and executive; for this class of work is certainly an additional one which must be added to the cost of the grain, and frequently this expense amounts to a considerable fraction to be added to the price.

The shipper forsakes the commission merchant with whom he has been doing business in a satisfactory way for years, to accept track bids from above parties only for the reason that he finds that he is getting more money for his grain, not on account of his dissatisfaction with the former method of doing business, but for revenue only. If the charge for commission was a large one and profits on handling grain were now as they have been in the past, both of these views of the case might be correct. However, with the present close competition in business and the narrow margin on which it is handled, it is impossible that both these reasons can be correct. The buyer cannot get his grain at a lower price and the shipper also sells his grain at a higher price than if the business had been handled in the former manner through regular commission houses. One of these sides of the case must certainly be incorrect.

It is quite safe to figure that the owners or operators of regular elevators would not buy grain at outside points at an expense and trouble to themselves unless they, at least, thought there was some benefit in it. What this benefit is I will leave to you to determine. I will not again go over the matter of difference in price between grain that misses grade as charged as against the shipment, or the question of price on surplus or deficit in amount shipped to fill the contract. You have all heard these matters discussed frequently. The situation resolves itself into the fact that the

manufacturer or elevator proprietor has use only for his purchases for specific purposes. When they are not adapted to purposes for which they are bought, the difference naturally seems greater to them than there might be to someone else who had other use for the grain. In cases of this kind the commission merchant who has charge of your shipment naturally finds it to his interest to search and find the party who can use the particular quality of grain which has missed grade to best advantage, and at times he can place it at even above the contract price.

The grain dealer by shipping to the regular commission houses is enabled to keep posted on the demand for various qualities of grain, the condition of the market and many other items of information that are valuable to him and can only be obtained from each market by someone who is familiar with it. This continued attention to your interest can only be shown by anyone who has your interest at stake, which must be the case with the commission merchant to whom you entrust your shipments. This is certainly of value, and, to my mind, much more valuable than possibly a small gain in price on special shipments, which does not exist at all times. I cannot but feel that proficiency in any class of business is entitled to reward. You will naturally have the advantage of experienced judgment to aid you in forming your own conclusions. It would, therefore, seem to me that the best results can be reached not only in a pecuniary way, but in matters of ease and satisfaction in the shipment of grain and all other matters connected with the grain business, by confining your shipments to reputable houses who have made the grain trade a study for years. This line of thought applies only to shipments to regular markets.

The system of track bidding for shipment to interior points and for miscellaneous trade is one of the necessities of the business and oftentimes enables shipments to be worked direct from point of loading to a consumer at a saving in freight and expense and is one of the needs of the present grain trade.

In handling grain for shipment to public markets the business must be done through established commission merchants or there will be no public markets of any kind. Parties in the commission and grain business cannot continue the maintenance of an open market without remuneration. They must have business or they will be driven to buying or building country elevators of their own or going into some other form of business. The question, therefore, is, as I have said before, one of self-interest. Can you afford to have the public markets destroyed, as they certainly will be, and trust to the mercy of elevator owners and manufacturers? Is it not better to at times make what seems to be a sacrifice of a small fraction in your profits rather than lose the safeguard of the various public markets which have always been and always will continue to be of use to you?

DANES IN CHICAGO.

In September a number of Danes from the free port of Copenhagen arrived in Chicago, and made an inspection visit to the grain elevators downtown. The free port of Copenhagen has, since its establishment in 1891, handled a large proportion of the corn imported from the United States, amounting to twenty million bushels or more annually.

The arriving corn is not, however, satisfactory to the receivers. It has not been so for a considerable length of time, as the trade knows, and complaints of its bad condition have been made both to members of the exporting trade as well as to the government through official trade sources; but no reform of American export inspection certificates seems to have taken place as a result of these complaints. Mr. Eric Henius, a grain dealer of the party, said to a reporter: "The corn is generally of excellent quality, and were it not for the American system of shipping certificates, there would be no hitch in our commerce with this country. As

it is, we find that certificates are sometimes issued for corn which is not in condition to stand the voyage, and consequently heats and spoils before reaching us. Serious rupture in our commercial relations has been threatened from this cause. Our exports to America are very insignificant; we take no money out of this country, but send ours here for your goods."

This is a mild statement of the case, and quite in keeping with Mr. Henius' character as a guest of this country, rather than as a grain importer. Karl Kolle, a Danish employe of Armour & Co., who acted as the guide, probably hit the situation more nearly when he said: "Danish importers intended to stop shipping grain from America, because, as they claimed, enough care was not exercised in sending grain that could stand the voyage." Mr. Kolle adds that northern shippers have prevailed upon them to try shipping from Chicago instead of from the gulf.

The visitors were also pleased with the system of grain driers in use in the elevators they inspected, and the Danish importers may take the hint to erect similar plants at home to handle off-grade corn on arrival.

PUBLIC ELEVATORS AND COMMISSION MEN.

[A paper read by I. P. Rumsey of Rumsey, Lightner & Co., Chicago, at the meeting of the Illinois Grain Dealers' Association at Peoria, October 11, 1900.]

What do we understand by "Public Elevators or Warehouses?" It is where everyone who wishes to store his grain or wares have equal rights. The parties in control of such elevators or houses are supposed to give each person, firm or corporation the same attention, rights and protection as are given to every other party who intrusts the custodian with his grain or wares. The law demands this. It must demand it. If it were not so, no person would be safe in storing with them.

We have Judge Tuley's decision to this effect. I say you would not store your property in such a public warehouse unless you believed your interests would be protected. But what is the situation? The railroads over which you are obliged to ship your grain, while owning their elevators, instead of handling your grain themselves, rent their elevators to a corporation and then compel you to send your grain to those elevators and pay them for taking it in and storing it; at the same time, this same corporation is buying grain in the same territory, shipping it over the same road and putting its grain into the same elevators for which it has to pay no storage, dictating into what part of the elevator their grain shall go, while you have no control of your grain whatever. You have nothing to say about where in the house it shall go, or with whose grain it shall be stored. The sub-inspector has "stamped" it, then the elevator man, your custodian, puts it where he pleases in the house and issues you a receipt for so many bushels and pounds of the grade the inspector has marked on the car.

The buyer is in the same helpless condition as to the grain he buys. He will get, or can demand, the grain his receipts call for; he does not expect to get an average, only the lowest quality that the state sub-inspector will inspect out on the grade the receipt calls for. Therefore, he will not pay a price of a good average quality of the grade. Occasionally (if not oftener), this sub-inspector will pass out grain so low that the buyer will refuse to accept it; and upon taking an appeal the sub-inspector is not sustained, upon which the owner or renter of this elevator, who is a custodian of your property and mine, will take this grain right back into the elevator and turn out a little better grain, which the appeal committee cannot quite reject. And the grain you have rejected is turned out upon some other buyer who does not watch his interest quite so closely.

I am illustrating from facts in my own experience. You naturally ask, who gets the better quality of this grain I speak of while the buyer of the elevator receipts only gets the lowest? Let me illustrate again:

An elevator owner or renter, who is the public

custodian of your property and mine, who has stored his grain in his own elevator, the same elevator of which he is the public custodian of your grain, will send a sample of finest quality of said inspected grain to an eastern buyer or miller, and offers to sell him the wheat—say, No. 1 Northern—guaranteeing it to be equal to the sample sent him. Let a commission man go to the same elevator man, his custodian, and ask for a sample of No. 1 Northern that he can send to a miller or exporter and guarantee it to run as good as sample. Our honorable custodian, the owner of said elevator, will refuse. His answer is: "I will turn you out the grade your receipts call for." The exporter will buy of the elevator owner, who is the custodian of your No. 1 Northern Wheat, and pay him 2 cents or more for the same grade you offer because the elevator man will guarantee to deliver No. 1 Northern equal to his sample, though coming from the same public elevator, the sample of which he would not guarantee to you.

The system which we are tied down to is, speaking in mild terms, uncommercial. Judge Tuley calls it "against public policy, therefore illegal."

In the good old days of public elevators, when millionaires were not so grasping and our elevators were running in a legitimate way—satisfied with their little fortunes made every year as custodians of grain honestly inspected, stored in public elevators—who were too honest to try to control not only all grain raised and tributary to Chicago, but the inspection of the same—in those days and years, the grades of grain in our Chicago elevators had a standing in every market in the world. Your grain came to Chicago, was inspected upon arrival, the next day was unloaded into public elevators and placed in bins as per grade, sold by receipt, and you got your returns promptly. The eastern buyer would order wheat by its grade, knowing he would get a good fair average quality, which was all he asked or expected. The seller attached the Chicago inspection certificate to the draft with the bill of lading and its payment was never questioned, though it crossed the sea.

Now our inspection certificate counts for nothing with the consumer. It is "guaranteed sample." Now, what about the commission man? He is your honest man. He is conservative yet industrious, willing to work hard and for a small regular compensation. His profession and occupation is to take care of your property to the best of his ability, not only obtaining for you the best price possible for your shipments, but watching inspection and weights and honestly accounting for the same. And where your grain is inspected by some of our incompetent sub-inspectors a lower grade than ought to be, he takes pride in securing for you its value by selling the property according to its value and not by the inspection.

How is it when you sell at your stations on track to the elevator men, guaranteeing grades and weights, and our incompetent sub-track inspectors pass your grain a grade below what it is entitled to? These elevator proprietors—at the same time custodians of public elevators of "Class A"—dock you on your sales to the lower grade and you have no man to see that you get justice. We commission men believe there should be a reciprocal relation between regular shippers and ourselves. We believe, too, that your track selling as now conducted is working to your disadvantage.

W. F. Prescott, of Leslie, Mich., secretary of the Bean Jobbers' Association, says Michigan will have 5,000 cars of beans this season.

The jute mill at the Washington penitentiary has shut down for repairs. The demand for grain bags has been larger from farmers than the mill could supply.

The exhibit of cereals made at Paris by the O. R. & N. Co. was awarded a gold medal. The grains exhibited were grown in Washington, Oregon and Idaho.

The first car of Colorado flaxseed of the season arrived in Chicago October 8, being consigned to Rosenbaum Brothers. It graded No. 1 Northwestern and was of fine quality.

Court Decisions

[Prepared especially for the "American Elevator and Grain Trade" by J. L. Rosenberger, LL. B., of the Chicago Bar.]

Entitled to Recover for Stolen Grain.

Where one takes the property of another, as, for example, grain, without the consent of the owner, and sells the same, the Supreme Court of Georgia holds (Buchanan against McClain, 35 Southeastern Reporter, 665) that a right of action accrues to the owner to recover the value of such property on an implied promise to pay for the same, even if such taking be a larceny, or theft, and the action, when so brought, is one arising from a contract, as it is termed, and not out of a wrongful act.

Liability as to Stored Wheat.

The owner of a grain warehouse was engaged in operating it as a warehouseman and as a purchaser of wheat for himself and another party, the arrangement being that the latter was to have the wheat paid for with his money and was to ship it out within fifteen days or else pay storage. The warehouseman's methods of doing business were those customary in such cases. If the wheat placed in the warehouse was purchased outright, tickets were issued in which were specified the number of bushels, the grade, the price per bushel, the total sum due and to whom payable. If no sale was made but the wheat was stored or deposited in the warehouse, the same form of ticket was issued, but no price was stated or agreed on. The price or amount to be paid was to be determined when the depositor actually made sale.

Now, as between such depositors and the warehouseman, the Supreme Court of Minnesota holds (Jackson against Sevaton, 82 Northwestern Reporter, 634) that transactions of this last kind were bailments, or wheat-storage, and not sales of the wheat, and that title to the wheat did not pass to the warehouseman. That the tickets did not contain an option clause the court considers immaterial, because, it says, it was never contemplated that the wheat represented by the tickets was to become the property of another person until a price was agreed upon and payment made.

However, after certain wheat had been so stored it was shipped by the warehouseman on the order of the other party above mentioned, and the depositors thereof demanded of the warehouseman that he return the wheat or make payment therefor, which demand was refused. Then this action was brought against such other party for conversion of the wheat. His counsel argued that until a demand was made on him and he was given an opportunity to either pay the market price or return the wheat no such action could be maintained against him. But the court thinks it an answer to this claim to say that the original owners deposited their wheat with the warehouseman, not with this party; that a demand was made on the warehouseman, and that the warehouseman, as this party's agent, had unlawfully shipped it to other agents for him, so that he finally got the benefit of the wheat without paying for it as he was to do under his contract with the warehouseman in order to become owner. The court also calls attention to the fact that he asserted full title to the wheat in his answer and on the trial, and says that under all of the circumstances a demand upon him for payment or a return of the converted property, after demand upon the warehouseman, was unnecessary. The right to follow the grain into his hands and to maintain an action for the conversion thereof, it adds, is undoubted.

The action, however, was not brought by the depositors themselves, but by an assignee of their claims. The assignments of their claims or rights of action against the party charged with the conversion of the wheat were full and complete, except that in each was a clause that the assignee was to pay the assignor when he collected the value of the wheat from such other party and just what he collected, less such charges and expenses as he paid or incurred in collecting. These, the court holds, were valid assignments, as between the de-

positors, the assignee and the party sued for conversion of the wheat, and it holds that the assignee was the real party in interest in the action.

Can Recover Only Value of Property Destroyed.

An insured grain elevator located near a line of railroad in Ohio was destroyed by fire. The Supreme Court of that state holds, Lake Erie & Western Railroad Company, 56 Northeastern Reporter, 1020, that, in an action against the railroad company to recover the value of the property destroyed, the liability of the company was, under the statute of that state, established when it was admitted or proved that the fire which caused the destruction originated on the land of the company and was caused by the operation of its road. Nor does it consider that the statute took away the owner's insurable interest in the property. And it declares that the railroad company could not claim any immunity because of the contract relations existing between the insurance company and the owner of the property. It says that if the railroad company desired indemnity against its liability under the statute it could, upon the assumption that it had an insurable interest in the property of others along its line of road because of its liability, secure it for a consideration paid.

On the other hand, the court holds that, although both the railroad company and the insurance company might have a liability with respect to the loss, the owner's right of recovery would be limited to the value of the property destroyed. In other words, it holds that when property destroyed as above stated, under circumstances which make the railroad company liable therefor, is insured, the right of the owner, as against the railroad company and the insurer, is limited to indemnity for his loss. Good morals and important considerations of public policy, it says, forbid that conflagrations should be made profitable.

But between the railroad company and the insurance company, the ultimate liability for such loss, the court holds, is upon the railroad company. And it states that in an action brought by the owner against the railroad company to enforce such liability, the insurance company, having, before the termination of the action, made payment to the owner on account of such loss, should intervene for the purpose of being subrogated to the rights of the owner, or put in his place, to the extent of such payment, and the amount recovered from the railroad company should be adjudged to the owner and the insurance company according to their respective interests.

SPONTANEOUS COMBUSTION OF HAY.

It is pretty well established that clover or other hay placed in stable mows when green may heat so violently as to finally become ignited. Apparently authentic cases have been reported, and while positive proof is lacking, circumstances seem to indicate that destructive fires frequently originate from spontaneous combustion. Several years ago the college barn at the Pennsylvania station took fire, says the Orange Judd Farmer, and it was found that the flame was confined to a haymow 18x23 feet and 23 feet high. It was thought best to remove the portions of hay not on fire. The mass was smoldering, and as soon as exposed to air it burst into flames. Examination of the mass thrown out of the barn showed that the greater portion of it was so badly charred as to be unfit for stock food. For several days previous to the fire a peculiar odor had been noticed about the barn. An examination showed that this proceeded from the mow, but fire was not suspected. It is well to avoid placing large quantities of clover hay in mows until it is thoroughly cured.

A wheat thief was given ninety days in jail in St. Cloud on September 28 for breaking the seals of grain cars on the G. N. road.

Oats brought \$20 a ton at Montesano, Wash., recently; said to be the highest price ever paid there for oats just out of the field.



PUBLISHED BY THE FIFTEENTH OF EACH MONTH BY

MITCHELL BROS. COMPANY

(INCORPORATED.)

OFFICE:

Manhattan Building, 315 Dearborn St.,
CHICAGO, ILL.

A. J. MITCHELL Business Manager
HARLEY B. MITCHELL Editor

Subscription Price, - - - \$1.00 per Year.
English and Foreign Subscription, - - 1.50 " "

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., OCTOBER 15, 1900.

Official Paper of the Illinois Grain Dealers' Association.

A GREAT YEAR ON THE LAKES.

This year of grace, 1900, is proving the *annus mirabilis* in the chronicles of lake commerce. It is a notable thing when the Buffalo elevators handle a million bushels a day for two straight weeks and when Chicago ships out nearly seven million bushels of grain in a single week, as was done during the third week in September. The result has been a grain blockade in Buffalo. Instead of grain being diverted from Buffalo to other ports, as many expected would be the case, Buffalo has handled four or five million bushels more of grain this year than last year up to the corresponding date. This is all the more remarkable as the wheat shipments from the head of the lakes this year have been far below the average.

One thing that has made such enormous shipments possible as those of the week mentioned above is the increasing average size of the boats. The exact amount of grain shipped from Chicago that week was 6,718,984 bushels. This was carried by 67 ships, giving an average of over 100,000 bushels to each. The Amazon carried off 260,000 bushels of grain, the Crescent City 240,000 bushels and two other vessels 222,000 bushels each. Such cargoes run into arithmetic very fast. These big boats drain an elevator in short order and sometimes have to leave short of their full carrying capacity.

Reports up to the date of the last government report showed that there had been 7,500 entries at the four leading lake ports. When the record for the entire year is made up it will be an eye-opener to those who a couple

of years ago saw no future at all for lake business.

THE ILLINOIS WAREHOUSE LAW.

The grain dealers of Illinois have not been idle during the present political campaign. Believing, as they do, that the amended warehouse law of 1897 is inimical to their own interests and to those of the producers of the state, they early commenced a campaign for its repeal and the substitution of the old law or one containing similar provisions. To this end they have circulated throughout the state the able address on "Public Warehouses and Their Methods," delivered before the Illinois Grain Dealers' Association at Decatur, Ill., on June 13, by Senator Isaac Miller Hamilton.

This document is a concise statement of the position of the dealers of the state with reference to the law as it now stands, and its effect on both dealers and producers. Its circulation is intended to do missionary work with candidates for the Legislature. There is no politics in it. Members of both parties voted for and against the present amended law, and the effort being made by the Grain Dealers' Association is intended to inform both dealers and candidates of the exact status of the law and the history of the case that led up to the passage of the amended law in 1897, giving to public warehousemen of "Class A" the right to deal in grain, which the Supreme Court decided that they did not have under the law of 1871. The Illinois Grain Dealers' Association is unreservedly opposed to the present law and will use every endeavor to see that it is repealed and the intent of the old law and the constitution of the state made effective in a new enactment.

THE EASTERN GRAIN POOL.

The most notable thing about the new pool by the eastern railroads of the grain business eastbound from Buffalo is its existence, not merely in the face of two signal failures in the past of pools built on the same lines, but in the face of both state and national laws forbidding such agreements. The roads deny that the new arrangement is other than one to "keep track of" the business done by each road, but say, nevertheless, that even if the arrangement be a pool, it is not one within the meaning of the statute, since its agent only routes the grain, and, further, that the roads, not being interstate roads, are not subject to the provisions of the Sherman or Cullom acts.

But has the pool's agent the right to dictate by what route grain shall be shipped in defiance of the shipper's wishes? And in what does the usurpation of such a right differ from a straight pool except as one plays with words? The ruling of the Buffalo courts on the demurrers in the Kellogg cases against the Buffalo elevator pool, as reported in these columns, does not lead one to expect much from them in case relief were sought there by shippers, but if our memory serves, a New York court, in the case of another state road handling western grain, has already ruled that the goods, apart from the road itself, makes the traffic interstate; that is to say, a state road becomes subject to in-

terstate commerce laws when it handles traffic originating in another state.

This is a logical ruling, of course, but one hardly likely to be cited against the present pool, which is more likely to fall apart of its own weight, when it becomes a burden to the trade, and also because prosecutions under existing interstate commerce laws are as futile as 10-20-30 vaudeville and not half as much fun.

SELLING ON TRACK OR CONSIGNING.

A new word on the track-selling question was spoken at the Illinois Grain Dealers' Association meeting at Peoria by A. G. Tyng of Peoria. His paper appears elsewhere in this issue and is worth reading. In the fewest words, his thought is that the track buyer finds the system, in spite of its additional expense, more profitable to him than buying the same grain through the commission man in the regular order on the floor of the exchange.

This is obvious, else he would, like certain classes of consumers, do his buying, just as they do, on the floor. There can, of course, be but one loser by the system—the track-seller, and he loses by putting it in the power of the track-buyer, as consignee on contract, to dispose of the off-grade stuff in his own way, which is always the easiest, naturally. Mr. Tyng's statement of the case is very strong. His deduction, which is entirely consistent, is that the system tends to destroy the general public market by starving out the commission man, who keeps it alive.

The difficulties in the case do not escape the writer of the paper. It is hard work to get the country dealers to see the virtue, or, rather, the profit of yielding an apparent present sure profit for a probably greater one in the future to be made by consigning. Emerson once said that mankind is just as lazy as it dare be, and the track-selling habit encourages respect for the sage's reputation for wisdom.

PRESERVING GRAIN BY ANTISEPTICS.

A London contributor to Broomhall's tells us that about the middle of September there arrived in that city a cargo of corn from the Argentine that was entirely free from weevil and in perfect condition. It further appears that the grain sampler was overcome by the gas he encountered in the hold and died forty-eight hours later. This accident led to the discovery that the cargo had been sprinkled during the voyage with some chemical preparation used as a preservative.

The unfortunate accident does not deter the correspondent from dwelling on the idea that antiseptic treatment of grain is practicable. He refers to the fact that Pasteur has demonstrated that fermentation is due to the action of living organisms, and that 95 per cent of the germs causing fermentation in grain require oxygen for their development, and so on.

But the gentleman forgets to mention that one potent factor in the development of the germs he is after is moisture. Some bacteriologists insist that moisture is even more potent than heat or oxygen. Certainly, we

know that there is practically no putrefaction of meat in dry climates, like that of parts of Mexico, nor rotting of grain in the Indian's adobe caches in the far Southwest of our own country. The voyage across the equator is trying on grain for this reason. But under the equator or under any parallel of the temperate zones the first principle, the a b c of keeping grain, is to store it dry and then keep it dry.

DEEP WATER IN ILLINOIS RIVER.

Illinois newspapers have discovered, since they have learned that navigation has been resumed on certain portions of the Illinois River, that the people want now a deep canal. This is interesting. Until twenty years ago the Illinois carried practically the same volume of water it does now with the drainage canal filling its banks, but the great apostle of a deep canal in those days, W. T. Stackpole of Fairbury, never could get anyone to listen to him talk on that subject except some long-suffering river-town editor.

It is possible the people of the Illinois Valley think now they want a deep canal. Like other folks, perhaps they want all they think they can get. They have the Illinois and Michigan Canal, but they haven't used it for years. What is more, they make no clamor now that its greater length is being filled with the sediment of Chicago sewage, used in large part to fill its levels between Channahon and Marseilles, and still less do they condemn the condition of the Lockport-Bridgeport end of the canal, which is literally so filled with sewage sludge that it is all but impassable—that famous "deep cut" with which early in the 70's Chicago startled the world by making its river "run up hill."

Either the canal commissioners, as owners, or the city of Chicago, as users, or the drainage canal, as partial destroyers of the Chicago end of the canal, should dredge it and again open it for navigation during the interval before this "deep canal" is dug. A little agitation that-a-way would sound right in the valley, but it might cost Illinois or Chicago, or both, some money to do the dredging.

ABOUT SPECULATION.

An interesting discussion took place in recent issues of the Bloomington Pantagraph on the effect speculation in grain has on prices. The contributors to the discussion were A. D. Ricketts of Champaign, Peter Thompson of Fisher and S. S. Tanner of Minier, the two latter holding that speculation in grain, or deals in "wind" grain, operate to break down prices. Mr. Tanner would, therefore, make it obligatory that every sale of grain on the floor of the grain exchanges should be accompanied by a registered voucher or receipt, showing that such grain is in actual existence and is not a myth.

This is working over again a very old question—so old as to be almost literally prehistoric in its origin. And yet it is not unfair to say that in the past the legal prohibition of free trading has resulted in almost immediate, continued and permanent injury to the grain producers and middlemen. We have only to recur to the recent experience of the

conduct, under such conditions, of the grain trade of the German empire to see epitomized every form of the abuse of illicit trading in public commodities. Take the publicity and the elasticity out of a market and the strongest element in that market immediately assumes and maintains control of it, because the ever contrasting elements which enter into every public market are removed from a secret market, leaving it to the depredations of the strongest, keenest and most daring.

Mr. Pope's paper on this topic, read at Peoria, is a strong document, undoubtedly, but the question is, how far the trading rules have fostered the abuses of short selling, with the consequent breaking down of prices. On Mr. Pope's own showing the reform of the rules has had a most wholesome effect in Chicago, although speculation itself has not been prohibited. If the rules were amended in all the exchanges in the same direction, and the storage charge were reduced, as Mr. Pope anticipates it will be reduced, then the bad effects on the market of short selling ought to be measurably dissipated, while the market would still retain that elasticity which free trading—speculation—gives it and which it needs to be a market of the best type for the producer. Gambling is always a destructive force, economically speaking, but speculation may be, indeed generally is, considered a productive force, since holding for a rise may be an economic benefit.

ELEVATORS AND INSURANCE.

No apology is needed at this time for presenting a couple of special articles on insurance subjects to our readers. For a long time, the insurance men claim, terminal elevator risks have been a "burning question," and that they are inclined to be somewhat radical in their opinions is not to be wondered at, however much one may deprecate the advance in rates which has taken place. As this advance is claimed to be the result of past experience with elevator risks, an attempt to re-adjust charges so as to make the rates proportionate to the risk, the attention of the elevator man will necessarily be directed for some time to come to fire protection and protective apparatus, since a reduction of rates is largely contingent upon the adoption of the best means of preventing fire and best apparatus for fighting it.

Accordingly, both in the interest of the individual owner and the trade at large, this journal will devote in the future a fair proportion of its space to questions of protection against fire and cognate subjects. The effectual way of lowering elevator rates in the long run will be to decrease the number of elevator fires, and this can only be accomplished through raising the standard of individual risks and increasing the precautionary measures.

The elevator owner or superintendent will find some timely hints in the present issue in regard to fire protection. Cold weather is approaching, and with it comes the need of special precautions. Especially should every man about the elevator be taught and the lesson constantly impressed upon him that the danger of fire is a real one and not a remote or impossible contingency. The one trouble

with most people is that the possibility of fire never presents itself to them. Rigid discipline in the cleanliness of the premises and in the care of fire apparatus and machinery would go far toward impressing employees with the ever-present nature of the fire risk; and that is half the battle.

CROP REPORT REFORM.

The government crop report as a rule is satisfactory to no one, its author alone excepted, perhaps. Even he will recognize its shortcomings, though he may plead in extenuation that the public reads into the report more than is actually there. The report states only "condition" during the growing season, and one has to go to another government document to learn that "condition" is one thing, in its relation to yield, in one place, and a considerably different thing in another; so that on its own theory one is puzzled to know how the general "average condition" can be estimated at all in understandable terms as a basis for yield.

But Mr. Grimes of Ohio, in the interview published elsewhere in this issue, shows pretty fairly, we think, the unreliable character in general of the original reports on which this "average condition" is made up. It is all volunteer work by more or less interested parties, whereas it ought to be the sole service of disinterested experts.

Mr. Grimes' objections to the present system seem to be well taken. The difficulty is to bring about a reform, more especially where reform necessitates increased expenditure. Yet it is evident that a reliable report will not be made until some reform of the method obtains, either upon the lines suggested by Mr. Grimes or some other equally comprehensive.

A CORN DODGER.

Among the few good things to reach the editors' table that seems to have escaped their attention is a corn "dodger" issued just two years ago by A. E. Hartley, manager for C. W. Hartley at Goodland, Ind. The purpose of the "dodger" was to urge farmers to put their corn in condition for market by "throwing out all dry rot and using it for fuel." In view of the severity of the inspection and the known bad condition of much corn at that time, the elevator man warned his farmer friends "against the possibility of discount" which could be avoided by "carefully sorting out the bad corn and putting the balance in the best possible condition." This advice still holds good, since it avoids friction at the elevator as to quality when the grain is offered for sale or on contracts, as well as prevents loss to the farmer through dockage. There are several other minor suggestions, all looking to the instruction of the farmer as to the care of his corn in the crib, and on the whole the circular is so admirable and so exactly to the point in a corn market every year at this season that it is hard to understand how it managed to lie buried on the table all these months. But as a good thing is never too old to be useful, so it is hoped the hint it contains will be made use of yet, to the advantage of others, both farmers and elevator men.

EDITORIAL

MENTION

Cars are getting scarce again. Be careful about your acceptances.

Begin right by refusing to load cripples or to use damaged grain doors.

Don't be a mule. Remember that your neighbor's heels may be sharp-shod also.

Treat your commission man right, and he'll do the same for you, and a little more so, generally.

The Grain Dealers' Union of Iowa and Missouri will hold a meeting at Council Bluffs, Ia., on November 8.

Good cribs filled in the fall yield good corn next spring. See that your farmer friends build good cribs now.

Chicago's rules now permit trades in May corn and oats, which are regularly cleared, commencing with October 1.

Don't load grain and coal dust in the same car. Use a broom on the dust. This is old advice, but it is forgotten every day.

Considerable rotten corn is reported from the farms in Central Illinois. Don't pay No. 2 price for it—let "the other fellow" do that.

T. P. Baxter has resigned as secretary of the Illinois Grain Dealers' Association, and H. C. Mowrey of Forsyth has been elected as his successor.

Keep a lookout for grain pests, both in the grain arriving and in your elevators. Don't let them get into the house, but when they are found there go after them "hammer and tongs."

The fifteen St. Louis elevators have been notified of an advance of insurance rates ranging from 25 to 50 cents per \$100. About \$5,000,000 insurance is carried on the St. Louis houses.

The "grain inspection office" is again an issue in Minnesota state politics this year. But now it's "up to the other fellow" for a defensive campaign. Will Clausen get his revenge after all?

Apropos "mummy corn," of "the identical variety saved up by Joseph to tide over Egypt's great biblical famine," the astute Denison B. Smith of Toledo says: "Guess not. Corn was too scarce in those days to be hidden in the bellies of mummies."

S. H. Stevens' report as flax inspector, printed on page 182, is valuable, as usual, but additionally so in view of his suggestions pointing toward a national grain and seed inspection based on purity and scientific methods of arriving at the percentage of impurity. Such method is not impracticable. Flax is now

so graded at Chicago; why not expand the area of application for the method?

The Duluth Board directors have ordered that "to fill sales made for 'first half' of any month deliveries must be made before expiration of regular delivery hours on or before the 15th of that month."

We learn via a report of the Texas Association, which has appointed a delegate, that the Grain Dealers' National Association will hold its annual meeting at Indianapolis on November 20 and 21.

The wheat driers are going to make nice money for some folks in the Northwest this fall and winter, handling tough wheat. Who will it be—the farmer, the country dealer or the terminal elevator man?

Secretary Wells of the Iowa Association has held several good local meetings in that state during the past month. Iowa, in fact, is getting rapidly into good working condition, with material benefit to both dealers and producers.

The late Illinois Grain Dealers' Association meeting at Peoria developed into a "heart-to-heart talk" on consigning versus track selling. There was some good talk, but it was mainly one sided. The track buyer is still sending out his bids just the same, however.

The semi-annual meeting of the Ohio Grain Dealers' Association will be held at the Board of Trade Auditorium, Columbus, on October 16, beginning at 10 o'clock a. m. A number of seasonable papers are on the program. There will be but little general business to transact.

The elevator designed by the barn architect has distinguished itself in the wheat country this season by several collapses; those designed and built by elevator engineers have not. The difference is worth noting, even if the excitement in the former case was more thrilling than in the latter.

Another coöperative or farmers' elevator is suffering from overconfidence in its wheat buyer, who left Aberdeen, S. D., the other day, taking with him \$2,700 of the company's cash. The man's reputation and habits were all right—on paper—to the extent of \$1,000. The other \$1,700 the farmers and not the surety company will have to make good. The Texas man who writes to an agricultural paper for a recipe for a successful coöperative elevator will understand from this not unique episode the editor's difficulty in forwarding a satisfactory reply.

The case of the State of Illinois against Lloyd J. Smith for the removal of grain from the Chicago Elevator Co.'s houses without cancellation of the warehouse receipts, resulted in a mistrial, the jury standing eleven for conviction and one for acquittal. From the accounts given of the "deliberations" of the jury, consisting largely of tricks with cards, feats of conjuring and turning hand-springs, alternating with votes on the guilt of the accused, the public is not likely to think kindly of the jury system as a means of deter-

mining either guilt or innocence. It seems that the paramount issue with the Smith jury was "to get home." One was strongly in favor of conviction, one for acquittal; the other ten wanted to go home.

The unsophisticated individuals who buy wheat on futures have not yet discovered that when wheat goes up a carload is much less than when wheat falls, says the Implement Age. The weight of a carload depends on whether the buyer is "short" or "long" on the grain. Has the Philadelphia Bourse heard of this?

The spiritualist mediums of Fort Worth, Texas, have put the fire department of that city on the qui vive by a veritable prediction of a serious local fire loss. As a rule pointers on futures by the spirits are accepted by the uninitiate cum grano salis, but this sort of prediction is the sort of thing the fire underwriters, surely, will endeavor to encourage.

The latest conceit of the "farmers' trust" promoters, used as a bait to get farmers of the Dakotas interested, was to "offer to pay each delegate, farmer or editor who attended the promoters' meetings the amount of his expense in farmers' confederation scrip, which 'will be received in payment of commissions at any of the commission houses the company may establish.'" A stampede to the recent Topeka meeting was not reported, but that was not because of the unique character of this scrip, of course.

The cute legislators who loaded down the statute books of North Dakota with devices to tax the elevator owners on the grain in their houses, irrespective of its ownership, are now amazed at the depravity of those same elevator men. It appears to be the practice of these bad men, on receiving grain to be stored, to deduct the amount of the tax from the amount of grain delivered to them and to issue receipts for the balance only. The wheat is then shipped out, and when the assessor appears to assess the elevator, lo, there is no grain on which to levy the tax. But the farmer has already paid the amount, which the elevator company has pocketed. It is such things as this that make a man lose confidence in demagogues' schemes to benefit one class at the expense of another.

Minneapolis has been having a lot of new speculative business of late and attributes the increase to the "sixty-day" trading rule at Chicago. But this is a fallacy, probably, for the records of the Chicago Board of Trade clearing house for August and September shows that the clearings were \$9,308,662, against \$8,398,881 for the same period of 1899, with balances proportionally increased, although the items numbered this year only 199,639, as against 219,139 for 1899. But the figures for 1900 include only "sixty-day" rule business, and not the long-future trades included in last year's totals, which were settled outside the clearing house this year. So that Chicago's business since the new rule became operative has been rather greater than for the same period a year ago. If, then, Minneapolis or the other exchanges have been

picking up new business it has not been at Chicago's expense. The general business prosperity of the country is probably sufficient explanation for the increases.

A very brief synopsis of the new Manitoba grain law is given in another column, to show its scope. The act is supposed to be an improvement on the laws of Minnesota and the Dakotas and to provide for all emergencies affecting the grain producer as a seller of his crops. So far as law is concerned, the Manitoba grain growers ought now to be content and let the land have rest. It remains to be seen to what extent they will make use of these instruments, the non-existence of which hitherto was said to be the cause of all the rural unhappiness in that favored province.

The Ohio Supreme Court has made a new ruling determining what is a "total" loss under a policy of fire insurance. "It seems to be agreed," says the court, "that it is not necessary, to constitute a total loss, that all the material composing the building should be destroyed. It is sufficient, though some parts of it remain standing, that the building has lost its identity and specific character as a building; the insurance not being upon the material composing the building, but upon the building as such." The loss is regarded as total, then, even though something might be realized for the material by removing it.

There's a line elevator up in Minnesota that seems to be afflicted with a peculiar sort of hoodoo. On the line it is called a "leaker," for every year there is a shortage of grain running from \$40 to \$600, according to the business done, which the agent in charge is required to make good out of his private purse—or the farmers'. The house has no loading-out scales and the agent is given Minneapolis state weights as a settlement basis. If a man wants to earn the munificent wage of \$40 a month on such terms, of course, that's his privilege, and the boss can stand it, surely. But suppose the business is run strictly on the square on both sides, the fact that a house doing the business of the average country station, by natural shrinkage and losses by leaks from cars and bad weights, is due to drop \$600 worth of grain a year, ought to set the average elevator man to thinking about his scales and cooeping his cars.

The present American legislative tendency to make laws to gratify the whims of a petulant or pecuniarily interested class is illustrated by the present insurance law of Ohio: "The smart alegs of the insurance companies doing business in Ohio managed to induce the Ohio Legislature, last winter, to enact a law which excluded a large number of solvent insurance companies from doing business in Ohio without putting up \$100,000 with the state treasurer," says the Toledo Market Record. "Some good companies cannot afford to lose the income on that sum, equal to four or five thousand dollars per annum. Now, what is the result? The largest of our elevators here cannot be filled because not another dollar of insurance can be obtained on them. The tendency is to force the grain onto the

markets, if it is not forced to the markets of other states on account of this adverse condition."

The time seems to be approaching when the rules governing the inspection of grain may be so fixed and the aids for their application made so accurate that inspection may be classed as one of the exact sciences. The spirit of the time is moving toward national established rules in this department of the grain trade, and mathematical precision in applying such rules. The question of what constitutes pure and impure grain or seeds may be answered negatively. Impure seed is that containing unsound or damaged grains. The extent and number of such unsound or damaged grains constitutes the basis of its grade. When, therefore, human wisdom, through mechanical aids, will be able to tell with exactness the percentage of such grains present, the percentage of moisture and the weight per bushel, the science of grain inspection may be said to be established. And the tendency is, as we say, clearly toward this consummation.

"What is 'normal' in the crop reports?" is a question often asked, but one not so often answered. The Crop Reporter, however, explains, by referring to the agricultural department's instructions to its correspondents. In substance, the answer is this: "Normal" condition is not an average condition, but one promising more than an average crop; it does not indicate a perfect crop, but one less than this. "Normal" is, in fact, a condition of perfect healthfulness, "with such growth and development as may reasonably be looked for under this favorable condition of perfect healthfulness, and promising a crop neither deficient on the one hand nor extraordinarily heavy on the other." As, therefore, "normal" is not everywhere the same, but may mean 30 bushels per acre here and only 15 bushels there, the relation of condition to yield is exceedingly hazy, and so the statistician says: "This office has always consistently declined to consider its condition figures during the growing season as convertible into any definite yield per acre."

The decision of Judge Seaman at Milwaukee, referred to elsewhere, in a bucket-shop proceeding by the Chicago Board, was not very satisfactory. While it held that the Board owns its quotations, yet it held that by posting them the Board lost or waived that ownership, and the case against the Milwaukee bucket shops was made to turn on the question when they obtained their quotations—before or after posting. Judge Kohlsaat, in the case of Cleveland Telegraph Company against Oscar M. Stone, on October 10, held, however, that "there is no such dedication to public use [by mere posting?] as will serve to defeat or terminate such property right in the party entitled thereto;" that the Board has a right to convey property rights in its quotations, as to the Telegraph Company, and that the defendant Stone had appropriated the quotations before publication, wrongfully, etc. The court therefore issues an injunction restraining Stone and others from receiving, sell-

ing, etc., said quotations. The courts have all hitherto recognized the Board's claim of ownership of its quotations, but this seems to be the first time a court has seen the propriety of stopping anyone who felt like it from stealing and making use of them. This looks like a thump on the solar plexus of the bucket shop.

The new schedule for terminal elevators has been submitted to the insurance companies. It is figured that it will increase the premium receipts of the companies about \$750,000. The basis rate is made \$1.75. The largest additions are for boiler inside the building or frame addition, \$1; driers or bleachers, if in the elevator, \$1. Dirty elevators, or those poorly managed, have \$1 extra charged, dust bins in the building cost 25 cents, electric dynamos not in fireproof room 25 cents, shingle roofs 25 cents, and gallery connections not fireproof and without approved fire doors at each end 25 cents. Charges or deductions for favorable features are to be added at discretion. The deductions are for journal alarm, approved, 10 cents; approved sprinkler equipment, 25 cents; approved open or curtain sprinklers, 5 cents; approved perforated pipe sprinklers in cupola, 10 cents; approved detached boiler house, 10 cents; bin warehouse without elevator legs or grain hoisting machinery, 25 cents. This will bear pretty hard on some of the old and badly kept houses.

It seems to be quite impossible to carry on a political campaign without more or less indulgence in misrepresentation. It used to be said to be an American national habit, but with the march of democracy abroad that notion has been most effectually exploded. The American is not an exclusive campaign liar, but with the James Butler's "Exposé of the Grain Trust" in hand as a sample effort, one must concede that the American has possibilities as a campaign liar that rank him as exceptional.

Mr. Butler, who is a resident of Topeka, was an officeholder under the Leedy administration in Kansas. A very brief career as superintendent of the Reform School was followed, for cause, by a sub-inspectorship under Grain Inspector Culver. When the dynasty changed Butler invented the Farmers' Federation, the recent general meeting of which at Topeka was a fizzle. Then he wrote a book to prove that the grain dealers' associations in general, and that of Kansas in particular, are trusts, and cites S. H. Greeley's testimony before the Industrial Commission on the Chicago elevator system, to prove it! These lies, which contain a small fabric of truth, like that of the unfairness to the grain trade of the Illinois public elevator law, cited by Mr. Butler as evidence of a conspiracy of country dealers to rob the farmers, are very insidious, and, as remarked before, disclose American capacity for scientific campaign lying that is awesome.

The grain dealers of Kansas are not alarmed, but as a sample of what good campaigning can do, we have the clipping bureaus sending us horrifying accounts of the "Infamous Grain Trust's" doing from Maine to California, based on Butler's exposé, and we are hanging onto our pocketbook with both hands and a log chain, to say nothing of our reputation as an associate of grain men generally.

Trade Notes

The Davis Gasoline Engine Works Co., Waterloo, Iowa; the Webster Mfg. Co., Chicago, and the Olds Motor Works, Detroit, Mich., all exhibited their gasoline engines at the recent Illinois State Fair held at Springfield, Ill.

As will be noticed by their advertisement this month, the Jeffrey Mfg. Co., Columbus, Ohio, have their new chain belting and conveying machinery catalog ready for distribution. Write them for a copy, mentioning the "American Elevator and Grain Trade."

The Webster Manufacturing Company, Chicago, has received a contract for the power transmitting, elevating and conveying machinery equipment for a cement mill of 800 to 1,000 barrels' daily capacity for the Elk Rapids Portland Cement Company, Elk Rapids, Mich.

Among the large contracts recently taken by the Standard Scale & Supply Co., Limited, of Pittsburg, Pa., the following two are worthy of special mention: For the Great Northern Railway Elevator at Duluth, eighteen 1,600-bushel hopper scales. For the B. & O. Elevator at Newport News, Va., ten 1,400-bushel hopper scales.

The Invincible Grain Cleaner Co., Silver Creek, N. Y., report that they are very much gratified at the way orders are coming in from all quarters. They are very busy notwithstanding their increased force, added facilities and 13-hour work day. They feel that this is proof positive that the merits of Invincible machines are being recognized.

Catalog No. 16 of Power Transmitting Machinery manufactured by the Weller Mfg. Co., 118 to 126 North Avenue, Chicago, has just been received. It is a substantially bound book of about 150 pages, and should be in the hands of every elevator man. The Weller Company will be pleased to receive requests for copies. They make complete elevator equipments.

The S. Howes Co., Silver Creek, N. Y., report, through their general western manager, Mr. B. F. Ryer, 11 Traders' Building, Chicago, that business with them is keeping up splendidly so that they have to run with an extra force. Their Improved Eureka Oat Clipper is attracting considerable attention and quite a number of sales are being made, particularly machines of large capacity.

Secretary F. L. Cranson, of the Huntley Manufacturing Co., Silver Creek, N. Y., hints at the prosperity his company is enjoying as follows: "We have never been as busy as during this year. Our factory has run overtime steadily since the first of April. We have orders now for over one hundred of the largest machines we build, so you can imagine a little something of how business is with us."

S. A. Worcester, for the past three years special machine designer for the Warder, Bushnell & Glessner Co., Springfield, Ohio, has accepted the position of mechanical engineer and superintendent with the Foos Gas Engine Company, of the same place. The Foos Company are planning to build gas engines up to 250 horse power. They will have double cylinders. Mr. S. E. Baker, president of the company, recently returned from an eastern trip. While in Boston he secured an order for a carload of engines and also orders for several for foreign shipment.

The large number of fires caused by sparks has led elevator men to look for a sparkproof paint. Zanzibar Anti-Rust Paint is guaranteed by the makers to be spark, water and rust proof. It is higher priced than most paints, but it is a guaranteed article and is said to be more economical in the long run. Zanzibar Paint is being used in all parts of the United States and Canada by railroad, elevator and other companies on mills, factories, bridges and large buildings with most satisfactory results. It is evident that it is a fine paint for this purpose or it would not be adopted by these companies, who

have made comparisons and subjected it to the most severe tests as to elasticity, heat, etc. The Garfield Oil Co., Cleveland, Ohio, are the sole manufacturers. Ask them to send you their little booklet, "A Study in Black."

James Stewart & Co. of St. Louis, Mo., have secured a contract from the Galveston Wharf Co. for the reconstruction of Elevator B and also rebuilding all the wharf sheds. The work is to be completed in sixty days and is to be conducted in such a manner as not to interrupt the shipping business. They also have a contract from I. H. Kempner for rebuilding the Merchants' & Planters' Compress on a larger scale than before.

There has just been placed in Central Elevator "A" at Chicago, the largest improved Monitor Separator ever constructed by the manufacturers, Huntley Mfg. Co., Silver Creek, N. Y. The extreme length of the machine is 11 feet 2 inches. width, 10 feet 1 inch; height, 10 feet 9 inches. It is of the double shoe type, not one above the other but continuous. The machine was constructed especially for taking oats out of wheat, and is successfully at work. It is a fine piece of mechanism, embodying all the improvements made in the Monitor Separators.

With the increased acreage of Kaffir corn in Kansas, Indian Territory and Texas, there has come a demand for a mill that will grind the Kaffir in the head, as such work saves thrashing and also gives the feed that roughness which is desired by most cattle feeders. Bowsher Feed Mills, the manufacturers inform us, can be supplied with an attachment for feeding Kaffir heads so that the mill will grind it in first-class shape without any trouble whatever to the operator. In territory where this corn is raised many will doubtless be interested in this. The N. P. Bowsher Co., South Bend, Ind., have a special pamphlet ready to send to those who request it.

A familiar sight in crossing the Jersey City Ferries from New York is the mammoth grain elevator and freight piers of the Pennsylvania Railroad Company. Clouds of smoke from the elevator stack, tugs, freight engines and factories near by almost constantly surround and cover the elevator. The tin roofs of these structures were painted with Dixon's Silica Graphite Paint No. 2, four years ago. Officials in charge of the painting say that the paint is still in good condition and has proved the most durable and satisfactory for exposed metal work that they have ever used. Considering the full exposure to salt air, heat of the summer's sun, storms of winter and dust and sulphurous conditions that obtain on this elevator building, it is a severe and practical demonstration of the great durability of Dixon's Silica Graphite Paint.

THE COTTONSEED INDUSTRY.

The cotton oil mill superintendents of the Carolinas, at a late meeting held at Charleston, when the Cotton Oil Mill Superintendents' Association was formed, adopted resolutions protesting "against national class legislation," that is, against the anti-oleomargarine, or Grout, bill, which threatens "to destroy an industry which now uses nearly 10,000,000 pounds of the best grade of cotton oil annually," and also asked the cotton-growing states to remove the anti-oleomargarine legislation from their statute books.

The growth of the cottonseed oil industry in the past thirty years has been remarkable. For the first twelve years (1870-81) of the record, the growth was quite gradual, the number of gallons of oil made annually increasing from 3,000,000 in 1870 to only 10,000,000 in 1880 and 8,000,000 in 1881, while the per cent of seed grown used for oil making rose from 4 to only 9 (or 6) for the same years. After 1881, however, the production increased by leaps and bounds, being 12,000,000 gallons in 1881-82, 32,000,000 in 1887-88, 55,000,000 in 1893-94 and 95,000,000 in 1898-99, or 75,000,000 in 1899-1900, while the per cent of seed grown made into oil was 40 in 1899.

Meantime the exports increased from 547,165 gallons of oil and \$293,596 worth of seed in 1872 to

50,627,219 gallons of oil and \$12,077,519 worth of seed in 1899. The exports of cake and meal of cotton are now more than double in quantity and value those of linseed. For example, for crop of 1899 there were exported 1,079,993,479 pounds (\$9,253,398) of cotton meal and cake against 487,177,399 pounds (\$4,755,193) of linseed.

COST OF GROWING CORN.

The cost of growing corn has been treated exhaustively in several issues of the Orange Judd Farmer recently, with a view to determining the approximate average cost of this cereal when ready for the market. Circulars were prepared and sent to 1,500 corn growers, from the Atlantic Coast to the trans-Missouri states, so arranged as to secure an exact record of all labor and expense attaching to the growing of the crop, from the fertilization and original preparation of the field through the whole season's work, in the order in which performed, up to the cribbing of the crop. In tabulating these individual records only those which were absolutely complete and perfect were used, covering 4,051 acres, located in 21 states and representing 156 counties.

In considering cost, all the actual outlay, or the amount of capital actually used up and which must be wholly replaced before any profit on the crop can accrue, was calculated. This covers taxation, labor and labor maintenance, fertilizing material, seed, team maintenance, and depreciation of machinery and horses. The item of labor means work for which wages are paid. A team means two horses, and their maintenance per acre is the cost of their keep per year, divided by the whole number of acres on the farm. The same principle was followed in computing the taxation per acre and other similar elements of cost.

It was found that methods of cultivation differed so widely that many diverse items of expenditure were reported. In some localities it is necessary to cut or burn off the old stalks before planting. In Kansas and Nebraska the method of listing is practiced. Fertilizing was resorted to in some localities, but not in all. The cost of planting and cultivation also was very diverse, according to the methods employed. The same may be said of gathering and cribbing. To reconcile these diverse figures a peculiar method was adopted. Each item of expense was charged to the number of acres to which it applied, and then was divided among the total number of acres, to show the exact bearing on the entire problem. For example, listing was practiced on only 560 acres, at a cost of \$110.42, or .197 cent per acre, which, apportioned to the entire area of 4,051 acres, resulted in a charge per acre for listing of .027 cent. The same plan pursued throughout the computation resulted in a fair estimate of the cost per acre on the total acreage.

The following table, then, represents the conclusions of Statistician B. W. Snow as to the cost of growing corn:

	Average Cost
	Per Acre
	Whole Acre.
Cutting stalks.....	784
Breaking stalks.....	889
Plowing.....	3,491
Harrowing.....	3,280
Listing.....	560
Fertilization.....	1,639
Planting.....	3,491
Cultivation.....	4,051
Replanting.....	1,086
Seed.....	4,051
Husked standing.....	3,106
Cut by hand.....	730
Cut by machinery.....	215
Husked from shock.....	867
Taxation.....	4,051
Team maintenance.....	
Depreciation machinery (\$2.09 per acre at 10 per cent).....	
Depreciation horses (\$1.49 per acre at 10 per cent).....	
Total annual investment.....	\$5,838
Less value of fodder.....	.781
Cost per bushel (39.2 bu. per acre).....	\$5.057
	.129

If to the foregoing is added 6 per cent interest on the annual investment, machinery, horses and land, we have a total of 21.5 cents per bushel as the cost with interest. This represents the selling price at which the producer can realize cost of production and 6 per cent interest. Any price above 21.5 cents represents profit.

MINIMUM CARLOADS.

[From a paper by Jas. P. McAllister of Cincinnati, read at the late annual meeting of the National Hay Association.]

Hay is not so great a sufferer under the present standard of minimums as straw. The proportion of shipments of straw compared with hay is approximately 15 per cent of straw to 85 per cent of hay. As an index of and to show the relative loss each sustains under the existing standards, the record of 100 cars of straw and 100 cars of hay, taken from a shipper's books, shipped consecutively and loaded by many different balers at widely separated points, produced this result: Of the 100 cars of hay, but 9 per cent showed a dead freight loss, while the 100 cars of straw showed 27 per cent dead freight loss. The proportion of loss was about as 1 to 3, straw sustaining the heavier. You understand, however, that the medium and larger cars were used in these shipments. Had all cars offered been loaded by the shippers, the proportion of loss would have been much greater. Lack of time prevented a wider range of research on this line, but this may possibly prove a fair average.

As most of you know, there are three general classifications for the United States. Official Classification No. 20 embraces all lines east of the Mississippi River and north of the Ohio, including Virginia common points. Classification No. 27, known as the Southern Classification, includes all territory south of the Ohio and east of the Mississippi rivers, except Virginia common points, as noted in No. 20. Classification No. 30, and known as the Western Classification, embraces all points west of the Mississippi River, including the Pacific slope. Canada is governed by the classifications touching her border, except for shipments within her own country, where the minimums are practically the same as in the United States, while our sister republic, Mexico, seems to adhere to the carload basis, with varying minimums, a little in excess of ours. Some of the states, notably Texas, have state commissions which regulate transportation within their boundaries. The minimums for Texas are 15,000 pounds for cars up to 34 feet in length, and 17,000 pounds for 34 feet and over.

The various railroad lines within the sections covered by the three classifications print exception sheets; and these exception sheets name the actual rates and minimums in force on the several lines issuing them. In order to obtain this important data, letters were addressed to the general freight agents of quite a number of the important lines, scattered from Halifax to the City of Mexico, and from Victoria to Jacksonville, and it is gratifying to be able to say that to every one of these inquiries replies were returned promptly. These letters were confined exclusively to the minimums in force on the several lines addressed, and it would be interesting to note here the many standards there are in force. It would lengthen this paper, however, and the extremes no doubt will suffice.

The minimums as reported vary from 14,000 to 36,000 pounds (the larger figures for cars up to 58 feet in length); and so far as the printed or written matter in hand shows, in every instance they reach the minimum by the length of the car; and many of the changes of the minimum are ridiculously out of proportion to the space gained or lost.

Owing to the incompleteness of the railroad equipment register, it was found impossible to obtain a correct list of the length and dimensions of all the box freight cars in service on all the various railroads of this country, but judging from some of the records that are very complete it appears that of all the box cars in use in this country, Canada and Mexico—these foreign cars intermingling more or less—about 25 per cent are 32 feet and under, and consequently under size for a 20,000-pound minimum load of hay, to say nothing of straw. Assuming that 25 per cent of the whole is approximately correct, and represents the number of undersized cars, it follows that in times of scarcity the shippers are either deprived of one-fourth of the cars in use on the several lines, or compelled to load the small cars and stand dead freight.

Believing that the officers of our Association had

in view, when inviting discussion on this subject, the correction of the evil we are laboring under as a result of too high a standard of minimums, so far as the Association can accomplish it, a lower minimum for these undersized cars, arrived at by any system of measurement, enabling the shipper to use them all in times of scarcity, would be welcomed as an improvement. A deeper study, however, would suggest that to arrive at a proper minimum by the length of the car alone is erroneous, and results often in too much loss, either to the shipper or the transportation company. What would seem to be a more equitable way to arrive at a proper standard for minimum carloads of hay and straw would be by the number of cubic feet, internal measurement, the car contains, gauged by the number of cubic feet in an average ton of baled hay or straw.

THE SOULANGES CANAL.

While the Connors syndicate were offering explanations for delay in beginning the work of erecting their elevators at Montreal, the Canada Atlantic Railway officials on September 17 were treating the Montreal Corn Exchange members to a little trip to show them what that railway had done on its own account elsewhere. A special train carried the party to Coteau Landing up the St. Lawrence, where the railway's 500,000-bushel transfer elevator was inspected. Then the guests were put upon a grain barge suitably decorated and provisioned for this occasion and taken through the new Soulanges Canal, through which, in August, over 600 barges passed. The locks are 275x46½ feet and from the head of the canal thirteen miles to its foot there is a fall of 82½ feet. About midway is an electric power house of 300-horse power capacity to operate the locks, bridges, etc.

Among the speeches was one by Manager C. J. Smith of the railway, who said that from the opening of navigation up to September 1, 1898, the C. A. Ry. carried 5,336,000 bushels of grain. During the same period of 1899 the company carried 7,067,000 bushels, and this year, up to September 1, they had carried 8,000,000 bushels. The company hopes that before the end of the present season comes round it will have carried over 11,000,000 bushels. He regretted that the facilities offered in the port of Montreal do not enable the company to do the business that it desires. The tonnage of the company's lake boats is capable of handling 20,000,000 bushels of grain, but the best outlet they can get by the Gulf is 11,000,000 to 12,000,000. One reason for this is the fact that the company cannot locate a proper terminal at Montreal. It has, however, good terminal connections at Quebec, where its facilities will be further extended in the near future.

Apropos the C. A. Ry. a R. K. McMahon, a prominent Duluth shipper in Buffalo, said recently: "The grain export trade I regard as practically lost to American water and rail lines. Yes, hopelessly lost, and it cannot be recovered unless the all-water route is so improved as to enable vessels of large tonnage to pass. That appears to be a remote proposition. The Canadian water route is cutting no figure in present calculations, on account of the Canadian Atlantic Railroad Company's unsurpassed facilities for quick delivery. Why, a vessel of large draft can deliver a cargo of say 200,000 bushels from Duluth to Parry Sound, on the Georgian Bay route, in 30 hours. There is direct rail communication between Parry Sound and Ottawa and Montreal, so by that route we can have our grain on the ocean before a barge and consorts could possibly reach Montreal by the all-water route, besides saving enormous canal tolls, big towing charges, heavy insurance, etc. The Goderich route, too, is coming into favor, as the Grand Trunk road reaches that port and has excellent facilities for shipping grain to Montreal. It has big elevators and is a great factor in the contest for the export grain trade."

South Dakota has discovered that it can grow good broom corn. One field of twelve acres this season yielded about six tons.

NAVIGATION OF ILLINOIS RIVER.

One of the collateral results of the opening of the Chicago Drainage Canal has been the revival of traffic on the Illinois River below La Salle, which city has for over fifty years been the nominal head of navigation. Below La Salle the river has been improved by a system of dams, making a slackwater channel; but what with low water and the natural filling of the river bed in the slackwater basins, there has been little regular navigation of the river above Chillicothe, or Hennepin, for several years. The opening of the drainage ditch has, however, raised the water level of the river between two and three feet and restored the stage of water in the river to the ancient low-water datum.

"As a result we are able to load grain barges to their full depth and get to market without the delays formerly so common on the river," said the agent of the Turner-Hudnut Company's elevator at Chillicothe to a Chicago Record reporter. "Freight in full boatloads is less than freight in half loads, and we are able to buy grain—and are buying it—half a cent a bushel nearer the market price than last year. Our elevator will handle 200,000 bushels of corn and oats this fall, on which we will pay not only the naturally higher prices this year but \$10,000 besides, representing the farmers' share of the cheapening of transportation. That can be credited to nothing else than the opening of Chicago's canal, which has sent the new flood down the valley."

Of course, there is little prospect of a return to canal conditions of forty years ago, when railroads were few and far between and when the canal elevators were able to pay a price for grain that took every kernel within thirty miles of the canal or Illinois River during the navigation season; but the Record says that: "Encouraged by the prospect of increased depth of water, because of the Chicago Canal, the Turner-Hudnut Company of Pekin last year acquired the long-idle river elevators in all these cities, and bought grain for the Pekin and Peoria market, diverting it from Chicago. The corn goes to the Pekin distilleries and the oats are clipped in that city. They bought last year nearly 200,000 bushels of grain at Chillicothe at a rate which the railroad elevator could not equal. They bought at other cities in the same way, and the Illinois River experienced a slight boom."

There has not been, unfortunately, any corresponding effect on the water level of the old Illinois & Michigan Canal, running from La Salle to Chicago, since the flood of drainage canal water affects Illinois River only. Years ago the business of the canal in grain began to decline. A part of this was natural, for the new railway lines took the grain that previously had been hauled for the longest distances. Another part of the decline was unnatural, since the grain and other traffic—except stone from the Joliet-Lemont quarries—left the canal to go to the paralleling railway. When the railway made up its mind it wanted the canal grain and lumber, it made a rate to get them, just as the Record says a 5-cent rate on grain, with a 1-cent rebate, was made from Chillicothe to Chicago to stop the Turner-Hudnut corn from going down the river; and so, despite big conventions held at canal towns some years ago to head off this movement and to work up a sentimental interest in a revival of "the old canal," the railway has gradually taken the big end of the canal's business, even from canal towns and canal elevators, not a few of which have their switch-tracks laid on the canal banks under the old canal loading spouts.

The result has been that the canal revenues have declined and the canal itself has been allowed to go out of repair. Its feeders are filled up, the canal itself needs dredging for its entire length, its aqueducts need repairing and the Lockport-Chicago end, filled as it is with twenty-five years' accumulations of Chicago sewage sludge, is scarcely navigable. Until the canal is dredged and reopened to boats carrying a full load it can never again be of any weight as an arbiter of rates as in the old days.

RANGE OF PRICES AT CHICAGO

The daily range of prices for cash grain at Chicago for the month ending Oct. 12 has been as follows:

September.	NO. 2* R.W. WHT		NO. 1 NO. 2 SP. WHT		NO. 2 CORN		NO. 2 OATS		NO. 2 RYE		NO. 1 N.W. FLAXSEED	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.
12.....	75 1/2	76 3/4	73 1/2	75	40 1/2	41 1/2	22 1/2	23 1/2	51	51	150	150
13.....	76	77 1/2	74 1/2	75 1/2	40 1/2	41 1/2	22 1/2	23 1/2	51	51	150	150
14.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151
15.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
16.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
17.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
18.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
19.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
20.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
21.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
22.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
23.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
24.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
25.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
26.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
27.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
28.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
29.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
30.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
31.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
October.—	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
1.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
2.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
3.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
4.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
5.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
6.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
7.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
8.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
9.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
10.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
11.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2
12.....	77 1/2	78 1/2	75 1/2	76 1/2	41 1/2	42 1/2	23 1/2	24 1/2	55	55	151	151 1/2

* Nominal price.

During the week ending September 14, Prime Contract Timothy Seed sold at \$4.35@4.60 per cental; Prime Contract Clover Seed at \$8.50@9.50; Hungarian at \$0.40@0.70; German Millet at \$0.90@1.25; Buckwheat at \$1.10@1.20 per 100 pounds.

During the week ending September 22, Prime Contract Timothy Seed sold at \$4.20@4.40 per cental; Prime Contract Clover Seed at \$10.00@10.25; Hungarian at \$0.40@0.75; German Millet at \$0.75@1.25; Buckwheat at \$1.10@1.25 per 100 pounds.

During the week ending September 28, Prime Contract Timothy Seed sold at \$4.30@4.50 per cental; Prime Contract Clover Seed at \$10.00; Hungarian at \$0.65@0.75; German Millet at \$0.75@1.10; Buckwheat at \$1.15@1.25 per 100 pounds.

During the week ending October 5, Prime Contract Timothy Seed sold at \$4.30@4.50 per cental; Prime Contract Clover Seed at \$10.25@10.35; Hungarian at \$0.65@0.75; German Millet at \$0.75@1.10; Buckwheat at \$1.15@1.25 per 100 pounds.

FLAXSEED AT CHICAGO.

The receipts and shipments of flaxseed at Chicago during the 14 months ending with September as reported by S. H. Stevens, flaxseed inspector of the Board of Trade, were as follows:

Months.	Receipts.		Shipments.	
	1900-01.	'99-1900.	1900-01.	'99-1900.
August.....	1,125,750	624,375	749,135	670,392
September.....	764,250	231,875	522,880	775,135
October.....	1,163,814	1,163,814	848,149	848,149
November.....	1,008,698	555,308	594,339	594,339
December.....	812,875	283,423	283,423	283,423
January.....	259,500	110,605	110,605	110,605
February.....	339,750	221,245	221,245	221,245
March.....	198,750	90,953	90,953	90,953
April.....	206,250	204,890	204,890	204,890
May.....	16,500	16,068	16,068	16,068
June.....	20,000	53,361	53,361	53,361
July.....	20,000	53,361	53,361	53,361
Total bushels.....	1,890,000	6,297,382	1,272,015	3,773,908

WHEAT RECEIPTS AT PRIMARY MARKETS.

The wheat receipts at eight primary markets during the fourteen weeks ending Oct. 8, for the last two years, according to the Cincinnati Price Current, were as follows:

	1900.		1899.	
	1900.	1899.	1900.	1899.
St. Louis.....	12,934,000	5,391,000	12,934,000	5,391,000
Toledo.....	5,003,000	8,968,000	5,003,000	8,968,000
Detroit.....	962,000	1,279,000	962,000	1,279,000
Kansas City.....	16,615,000	7,735,000	16,615,000	7,735,000
Winter.....	88,514,000	23,373,000	88,514,000	23,373,000
Chicago.....	20,981,000	8,922,000	20,981,000	8,922,000
Milwaukee.....	2,399,000	2,824,000	2,399,000	2,824,000
Minneapolis.....	21,185,000	21,387,000	21,185,000	21,387,000
Duluth.....	5,999,000	19,879,000	5,999,000	19,879,000
Spring.....	50,544,000	52,962,000	50,544,000	52,962,000
Total bus., 14 weeks.....	89,058,000	78,335,000	89,058,000	78,335,000

A grain buyer at Blandinsville, Ill., gave the prize for the largest load of oats hauled to his house to Lewis George, who brought in 220-20 bushels.

RECEIPTS AND SHIPMENTS.

Following are the receipts and shipments of grain, etc., at leading receiving and shipping points in the United States for the month of September, 1900:

BAITONORE—Reported by Wm. F. Wheatley, secretary of the Chamber of Commerce:

Articles.	Receipts.		Shipments.	
	1900.	1899.	1900.	1899.
Wheat, bushels.....	932,322	708,565	575,473	1,149,091
Corn, bushels.....	1,222,288	3,640,806	1,567,317	3,985,464
Oats, bushels.....	363,595	1,957,774	490,540	1,593,532
Barley, bushels.....	5,810	65,553	16,716	16,716
Rye, bushels.....	106,332	22,350	719	2,871
Timothy Seed, bushels.....	16,162	6,014	2,913	3,332
Clover Seed, bushels.....	4,170	4,196	1,739	1,040
Hay, tons.....	3,781	3,781	3,781	3,781
Flour, bbls.....	3,32,310	385,264	252,547	304,853

BOSTON—Reported by Elwyn G. Preston, secretary of the Chamber of Commerce:

Articles.	Receipts.		Shipments.	
	1900.	1899.	1900.	1899.
Wheat, bushels.....	1,570,714	1,111,981	1,630,030	1,551,695
Corn, bushels.....	580,541	824,235	1,034,351	1,003,556
Oats, bushels.....	1,834,114	1,195,901	924,474	872,337
Barley, bushels.....	42,738	139,081	41,750	431,137
Rye, bushels.....	2,281	1,304	1,304	1,304
Flax Seed, bushels.....	67,179	10,060	67,179	10,060
Hay, tons.....	5,970	10,060	5,970	10,060
Flour, barrels.....	326,922	238,474	211,532	140,205

BUFFALO—Reported by Chas. H. Keep, secretary of the Merchants' Exchange:

Articles.	Receipts.		Shipments.	
	1900.	1899.	1900.	1899.
Wheat, bushels.....	8,30,331	7,52,141	5,427,900	5,578,000
Corn, bushels.....	5,617,001	6,294,168	4,102,000	5,856,090
Oats, bushels.....	4,253,241	1,677,400	3,147,000	1,062,000
Barley, bushels.....	1,027,953	2,168,562	241,100	915,000
Rye, bushels.....	155,676	197,477	60,000	208,000
Grass Seed, lb.....	60,122	68,000	68,000	68,000
Flaxseed, bushels.....	638,800	471,000	471,000	471,000
Hay, tons.....	1,559,846	1,320,510	1,320,510	1,320,510
Flour, barrels.....	1,559,846	1,320,510	1,320,510	1,320,510

* Shipments by Railroad.

CHICAGO—Reported by George F. Stone, secretary of the Board of Trade:

Articles.	Receipts.		Shipments.	
	1900.	1899.	1900.	1899.
Wheat, bushels.....	8,722,285	3,570,140	6,999,145	687,152
Corn, bushels.....	11,141,981	19,999,625	9,995,769	11,487,510
Oats, bushels.....	10,555,816	12,285,735	9,537,397	9,750,582
Barley, bushels.....	1,612,553	2,031,292	416,142	762,584
Rye, bushels.....	195,862	321,463	87,589	42,928
Timothy Seed, lb.....	7,305,280	14,756,027	8,598,642	11,137,127
Clover Seed, lb.....	1,851,850	935,502	568,732	1,117,541
Other Grass Seed, lb.....	525,560	1,169,754	1,025,605	1,310,904
Flaxseed, bushels.....	790,184	1,142,423	537,394	942,765
Broom Corn, lb.....	855,200	775,500	530,717	640,908
Hay, tons.....	11,706	17,591	350	1,115
Flour, barrels.....	507,415	470,628	385,491	369,385

CINCINNATI—Reported by C. B. Murray, superintendent of the Chamber of Commerce:

Articles.	Receipts.		Shipments.	
	1900.	1899.	1900.	1899.
Wheat, bushels.....	200,992	73,807	130,811	41,264
Corn, bushels.....	257,043	202,946	48,806	46,176
Oats, bushels.....	374,419	3,9,555	154,159	101,243
Barley, bushels.....	47,250	29,699	1,771	3,075
Rye, bushels.....	61,531	25,567	6,502	9,887
Timothy Seed, bags.....	13,849	17,631	7,927	13,263
Clover Seed, bags.....	2,252	2,177	1,404	3,431
Other Grass Seeds, bags.....	6,013	8,823	5,778	7,755
Hay, tons.....	6,023	7,306	2,429	5,504
Flour, barrels.....	177,888	180,288	194,768	149,922

DETROIT—Reported by F. W. Waring, secretary of the Board of Trade:

Articles.	Receipts.		Shipments.	
	1900.	1899.	1900.	1899.
Wheat, bushels.....	339,031	362,468	77,235	61,391
Corn, bushels.....	164,471	195,009	100,386	124,662
Oats, bushels.....	418,639	124,963	6,243	68,221</

HAY

A fire at Danville, Cal., destroyed \$20,000 worth of hay.

Frank Jones is running a hay press at Sullivan, O.

The hay crop at Beaumont, Cal., is estimated at 8,000 tons.

James Rhind of New Matamoras, O., will start in the hay and feed business at Graysville, O.

D. E. Lesh recently sold 1,500 tons of alfalfa hay at North Yakima, Wash., at \$4 per ton in the stack.

Carroll McClellan has bought a Duplex Hay Baler with capacity of forty tons a day and is baling hay at Foosland, Ill.

Short & Brehmer, hay and grain dealers, of Hillsboro, Ill., have dissolved partnership. Mr. Short will continue in the hay business.

John Manson, a hay and feed dealer of Bridgeport, Conn., has filed a petition in bankruptcy, showing liabilities of \$3,243.10 and no assets.

The Bogert Brothers Grain and Produce Company has been incorporated at Paterson, N. J., with capital stock of \$10,000, to deal in hay and grain. The incorporators are Frank and George Bogert and Robert J. McDermott.

All through Rapid Valley, in the vicinity of Rapid City, N. D., the largest hay crop has been raised this year that has ever been raised in the history of that section. The ranchers are holding their hay in the expectation of getting high prices for it.

The railroads are hauling a large amount of hay from both east and west to the Montana and North Dakota markets, for the first time in their history. The entire surplus of Washington will not be sufficient to supply the demands of Montana alone.

Senator E. W. Haines and M. H. Shipley have completed their work of compressing and shipping hay from Forest Grove, Ore., to the Philippine Islands on government contract. They paid an average of \$11 a ton for 2,500 tons of hay and made three shipments of 500, 1,500 and 500 tons each.

The hay crop has been so short in the neighborhood of Pierre, S. D., that stockmen generally are shipping heavily, not caring to chance the results of a severe winter. Shipments of stock this year are nearly double those of last year, though late rains have started the grass and give promise of plenty of feed in case of an open winter.

The steamship Nyassa, which sailed from St. John to Cape Town September 12 carried 2,500 tons of Canadian hay for use of the Imperial Government in South Africa. This makes 19,200 tons, valued at over \$300,000, sent from Canada since the outbreak of the war. In addition, there has been shipped from Canada to South Africa 8,207 bags of oats.

Hay is selling at \$13 to \$14 a ton in the vicinity of Grand Forks, N. D., an unheard-of price in that section. Even at that figure it is impossible to get enough to winter the stock on, and straw also is scarce. Farmers and stockmen are moving to points in Minnesota to winter their stock in the timber. They will cut swamp hay, which is plentiful there.

A petition in involuntary bankruptcy has been filed against H. Ames Budelwan, dealer in hay and feed at 207 East One Hundred and Tenth Street, New York City, by the following creditors: W. J. Overocker, T. P. Hoffman & Co., Wright Gillies & Bro. and George E. Van Vorst. It is alleged in the petition that Budelwan is insolvent, and on September 26 permitted a judgment creditor to obtain a preference by levy and execution. The sheriff sold him out on this execution.

The estimate of the hay crop of the United States, as made by the Orange Judd Farmer, places the grand total of the crop in the United States at 52,000,000 tons, or seven millions less than one year ago, and some sixteen millions short of the phenomenally heavy crops of 1897 and 1898. The most marked shortages are in the Dakotas, Minnesota and Wisconsin. The yield has run about 1½ tons to the acre as a high average, with a few favored sections giving from 1½ to 2 tons.

REVIEW OF CHICAGO HAY MARKET.

The prices ruling for hay on the Chicago market during the past four weeks, according to the Daily Trade Bulletin, were as follows:

During the week ending September 13 sales of Choice Timothy ranged at \$11.50@12.00; No. 1, \$10.50@11.50; No. 2, \$10.00@10.50; Not Graded, \$7.00@11.50; Clover Mixed, \$9.50; Choice Prairie, \$9.00@10.00; No. 1, \$7.00 for State and \$8.00@9.00 for Kan-

sas; No. 2, \$8.00@9.00 for Kansas. Rye Straw sold at \$6.50@8.25 for poor to choice. Wheat Straw at \$5.50@6.00, and Oat Straw at \$6.00. The receipts for the week were 2,687 tons, against 3,771 tons for the previous week. Shipments for the week were 54 tons, against 30 tons for the previous week. The market for Timothy Hay ruled quiet. Arrivals were moderate and demand light from all sources. Prairie Hay was firm throughout the week, the offerings were small and a good demand existed.

During the week ending September 22, sales of Choice Timothy ranged at \$12.00@12.50; No. 1, \$10.75@12.00; No. 2, \$10.00@10.50; No. 3, \$9.50; Not Graded, \$7.50@11.00; Thrashed, \$8.00; Clover Mixed, \$9.50; Choice Prairie, \$10.00@11.50—outside for Iowa; No. 1, \$9.50@10.50; No. 2, \$7.50@9.50; No. 3, \$6.00. Rye Straw sold at \$6.25@7.00. Wheat Straw at \$5.00@5.50, and Oat Straw at \$5.50. The receipts for the week were 2,618 tons, against 2,687 tons for the previous week. Shipments for the week were 153 tons, against 54 tons for the previous week. Only a moderate business was transacted during the week. Timothy Hay was in fair supply and the demand about sufficient to absorb the daily arrivals. Prairie Hay was scarce throughout the week. An active demand existed and all the offerings were readily disposed of.

During the week ending September 29, sales of Choice Timothy ranged at \$12.00@13.00; No. 1, \$11.00@12.00; No. 2, \$10.00@11.25; Not Graded, \$6.00@11.75; Choice Prairie, \$12.00@13.00; No. 1, \$10.50@12.00; No. 2, \$10.00. Rye Straw sold at \$5.00@7.00. Wheat Straw at \$5.00@5.50, and Oat Straw at \$5.00@5.50. The receipts for the week were 2,181 tons, against 2,618 tons for the previous week. Shipments for the week were 111 tons, against 153 tons for the previous week. A quiet and firm market was experienced throughout the week for both Timothy and Prairie Hay. The arrivals continued light and demand good, and all consignments sold readily. There was a large business in shipping hay from Iowa points to Wisconsin and Minnesota, where the crop is short. The bulk of Prairie Hay arrived from Kansas.

During the week ending October 6, sales of Choice Timothy ranged at \$12.25@13.00; No. 1, \$11.50@12.50; No. 2, \$10.50@11.00; Not Graded, \$9.00@12.00; Choice Prairie, \$11.50@12.75; No. 1, \$9.00@12.00—outside for Kansas; No. 2, \$8.00@10.00; No. 3, \$6.50@7.00. Rye Straw sold at \$6.00@7.00. Wheat Straw at \$5.25, and Oat Straw at \$5.00@5.25. The receipts for the week were 3,932 tons, against 2,181 tons for the previous week. Shipments for the week were 53 tons, against 111 tons for the previous week. The market for both Timothy and Prairie Hay ruled quiet during the early part of the week. Buyers took hold sparingly and the supply was liberal. Later the local demand became quite good and the arrivals were small. A firm feeling prevailed, but prices were not particularly higher.

MORE BUSINESS FOR TACOMA.

On August 15 the Northern Pacific Railway discontinued the transfer to the O. R. & N. Co., at Walula Junction, of wheat originating on its own lines east of that crossing. Just why the former company should for so many years have given the "long haul" to its rival, when equipped with suitable terminals of its own, has been a mystery to some observers; but now that the arrangement has been terminated, Tacoma expects to handle the wheat of the "Inland Empire," which hitherto has been going to Portland for export.

The new wheat warehouses at Tacoma, the building of which has before this been mentioned in these columns, are now ready for use. They are occupied by three of the leading Coast firms of grain shippers, and the latter believe that by virtue of the new policy of the Northern Pacific road, Puget Sound buyers, and having equal advantage in the Northern Pacific country with Portland, otherwise, as well as a shorter haul and lesser rate of vessel charters, Tacoma can get the bulk of the grain instead of Portland.

DEEP WATER FROM LAKES TO THE SEA.

The United States Deep Waterway Commission, appointed to report on the cost of deep waterways from the Great Lakes to Atlantic tidewater, has made its report to the Secretary of War, who makes the report public. In brief the commission says the Oswego-Mohawk route would be cheaper than the St. Lawrence-Lake Champlain route for a 30-foot channel, but that for a 21-foot channel the latter would be cheaper than the former. The cost reaches the modest sum of \$313,228,000 for the cheapest 30-foot channel, and \$206,358,103 for the cheapest 21-foot channel. It cost the government \$460,000 to find this out.

The Duluth elevator men are beginning to chase after corn in the absence of the usual crop of wheat in the Northwest.

COMMISSION

Wallace Armstrong has been elected secretary of the W. R. Mumford Co., Chicago.

George H. Daggett & Co. of Minneapolis will establish a branch office in Duluth.

Ware & Leland of Chicago have opened an office in Duluth, Minn., with George K. Taylor in charge.

C. V. Meinan and O. L. Hart, of Omaha, Neb., have fitted up quarters in the Mondamin Hotel building at Sioux City, Ia., where they will engage in the grain commission business.

George L. Morton, for many years traveling agent for the Peavey Elevator Company, has gone into the grain commission business with K. R. Guthrie, at 225 Godfrey Block, Minneapolis.

F. F. Collins of Collins & Co., Cincinnati, reports business on the Cincinnati Chamber of Commerce as in good healthy condition and market active. It has been steady for some time and indications now point to good business this fall and winter.

The F. W. Aufderheide Commission Company has been incorporated at St. Louis, Mo., with capital stock of \$25,000, to conduct a general grain commission business. The incorporators are Frederick W., Albert G. and Frank Walter Aufderheide.

L. S. Hammond, who for sixteen years has been connected with J. S. Lapham & Co., is now with C. A. Burks & Co. of Detroit, Mich., and Decatur, Ill., and will give special attention to the purchase of high-grade winter wheat, bran, middlings and mixed feed.

The charges of "bucket-shopping" against John Dickinson & Co., whose offices at Chicago were raided recently, were dismissed by Justice Martin after a review of the evidence. Justice Martin declared the evidence proved that the firm was conducting an honest business in stocks and grain.

Arthur R. Sawers, of the Calumet Grain & Elevator Co., Chicago, left the city October 11, on a short, well-earned vacation. Looking after the interests of his country constituents so closely has been making deep furrows in his home of thought, which is expected a short visit to French Lick Springs will dissipate. He will also visit the trade in Indianapolis and Cincinnati before his return to Chicago.

In the reorganization of McIntyre, Wardwell & Co. of New York, H. O. Armour will invest \$250,000 and the other members of the firm will be Mr. McIntyre, James G. Marshall and Thomas W. Moorehead. The house will deal in cotton, stocks, coffee, produce and grain, and will make a specialty of organizing and reorganizing and promoting corporations. The retiring members are W. L. Wardwell, E. L. Adams, H. P. Day and S. Taylor Jr.

A petition in involuntary bankruptcy was filed September 8 against the Young Grain Company of St. Louis, by the J. H. Teasdale Commission Company, the P. P. Williams Grain Company, the D. R. Francis & Brother Commission Company, the J. W. Booth & Sons Commission Company and others. The petitioners say that the defendant company is indebted to them for grain sold, and claim that it committed an act of bankruptcy in that it transferred, while insolvent, carloads of grain to certain creditors for the purpose of making them preferred creditors.

EXPORTS FROM ATLANTIC PORTS.

The exports of breadstuffs, as compiled by George F. Stone, secretary of the Chicago Board of Trade, from the Atlantic ports during the two weeks ending October 6, as compared with same weeks last year, have been as follows:

Articles.	For week ending Oct. 6, Oct. 7.		For week ending Sept. 29, Sept. 30.	
	1900.	1899.	1900.	1899.
Wheat, bushels.....	1,581,000	2,907,000	2,193,000	2,951,000
Corn, bushels.....	2,033,000	4,126,000	2,689,000	4,074,000
Oats, bushels.....	599,000	1,817,000	890,000	1,919,000
Rye, bushels.....	38,000	98,000	63,000	16,000
Barley, bushels.....	103,000	416,000	75,000	320,000
Flour, barrels.....	328,600	361,600	373,000	208,800

The Washington grain commission readopted last year's grades for wheat on the basis of a 58-pound standard.

The enormous rush of grain out of Chicago by boat during the past few weeks has caused a scarcity of trimmers. The number is limited by the union, which will admit no new members.

Owing to recent rains, local Minnesota managers have refused to grade wheat as delivered. Samples are sent to Minneapolis, where the grade is fixed by the experts of the different companies.

ELEVATOR

GRAIN NEWS

AMONG CHICAGO'S ELEVATORS.

The Atlantic Elevator, situated at Cherry and Weed streets, on Goose Island, has been running day and night, Sundays included, during the past two months. La Sier & Hooper own and operate this plant, and E. T. Freeman is superintendent.

The Galena Elevator, situated at Rush and North Water streets, commenced operating as a "regular" house October 1. All cleaning machinery has been removed and the premises put in good repair. The superintendent of this house is C. E. Zimmerman.

McReynolds Elevator "A," located at One Hundred and Sixth Street and the Calumet at South Chicago, has recently been made easily accessible to the fire department by the building of a suitable road leading to the plant. J. F. Kendall is superintendent.

At Armour & Co.'s Elevator D, situated on the West Branch of the Chicago River, at Morgan Street, a new 60-inch fan is being added to those already attached to the dust-collecting system. J. J. Becker has succeeded Mr. Shaw as superintendent of this house.

Requa Bros' elevator, situated at Forty-fourth Street and Wabash Railroad, has recently received several very important improvements in the shape of an addition to its dust collecting system, and a new 60-inch fan, two new Invincible Oats Clippers of a large capacity have been installed.

The Byrnes Elevator at 3149-51 La Salle Street, Chicago, has recently received improvements in the shape of a new fire pump with hose and stand-pipe to cupola. This house has a storage capacity of 30,000 bushels and good railroad facilities. It is owned and operated by the Byrnes Grain Co.

Armour Elevator C, on the West Branch of the river, between Joy's Canal and Burlington Slip, lost a part of its new gravel roof during a wind storm last month. Waterproof covers were spread over the bins and floor to protect the grain and machinery from the inclement weather. William De Groodt is superintendent of this elevator.

The Alton Elevators "A" and "B," situated at Archer Avenue and the South Branch of Chicago River, are receiving a new overcoat for the winter in the shape of paint. There is nothing like paint for preserving the iron on exteriors of elevators. Geo. A. Scaverns is the owner and operator of this plant, and Chris. Schmidt is superintendent.

Mr. C. M. Dauberman, superintendent of Sibley Elevator "A," at Thirty-first Street and Stewart Avenue, is a member of the firm of Dauberman & Smith, grain dealers and elevator owners of Mansfield, Ill. Their elevator and warehouse is located on the lines of the Wabash and C., C. & St. L. railroads. Mr. Dauberman reports business in a prosperous condition in this locality.

Armour's Elevator "E," at Fourteenth Street and the Chicago River, has been running day and night for the past week. The barge Amazon was loaded with 172,000 bushels, the whaleback, Barge No. 130, with 105,000 bushels. The whaleback steamer Rockefeller, steamers Grateveck, Onoko and Thos. Maythern, have all received loads at this plant during the past week. J. A. McKay is in charge of this plant as superintendent.

The St. Louis Elevator and annex, also known as the Keith Elevator, is to receive some necessary improvements. At the present time it has but one car-loading spout, but two additional ones are to be added, which will greatly facilitate the loading of cars. This plant is owned and operated by Keith & Co., and is located on the South Branch of the Chicago River, between Lime Street and Hough's Slip. Patrick Minogue is superintendent.

Truitt's Elevator, better known as the Klondike, located at Eighty-third Street and Stewart Avenue, is a steel building with steel storage tanks and a capacity of about 30,000 bushels. With the exception of the one elevator leg it is practically fireproof. The motive power is furnished by a 10-horsepower gasoline engine, but it is seldom called into requisition, being used but a few times during the year. Mr. Truitt built this house for his own personal use and stores oats principally.

The automatic journal alarm system recently installed in the McReynolds Elevator "B," at Wood, Fifteenth and Sixteenth streets, Chicago, is now in full working order. It has proved a success in every particular and those interested speak very highly of it. This excellent innovation consists of a system of electric wiring connecting with a fuse set in the journals and an indicator and alarm box in the engine room. Should a journal become heated and reach a temperature of 160 degrees, the

fuse goes off and sends in the alarm to the engineer. From the indicator he can ascertain on what floor and shaft the trouble is located.

The Fitchburg Elevator, situated at Thirty-ninth Street and Stewart Avenue, has recently come into the possession of the Lehman estate through foreclosure of mortgage. This property was formerly owned by Mrs. Hill and known as Hill's Elevator. The present tenants, the Williams Grain Co., have received a very unpleasant surprise from the new owners, in the shape of a peremptory demand for increased rent of 100 per cent, dating 24 hours from the time of notification.

The W. H. Merritt Elevator at Ninety-seventh street and the Calumet River, South Chicago, is a very busy house, having been run day and night for the past month. This plant has hitherto been inaccessible to the fire department, but a substantial roadway of slag and cinders has been constructed, running from Avenue N to the elevator. The large Barr Fire Underwriters' Pump has recently been overhauled and a test showed it to be in excellent condition. J. A. Reagan is superintendent of this house.

The Belt Line Elevator, at Eighty-first Street and Stewart Avenue, is owned by Messrs. Rosenbaum Bros. These gentlemen believe in keeping up with the times, and as a result constant improvements are in order. This house has but recently been equipped with the automatic journal alarm on all bearings. The automatic sprinkler system has been extended to the car sheds. The tanks, cupola and all outside ironwork have been repainted. The passenger elevator is duly appreciated by the employees. The belt elevator and stair tower has been inclosed with 2-inch plank on the first floor. J. B. McCann is the superintendent.

The Calumet Grain & Elevator Co. have been very busy during the past three months at their elevators at South Chicago. These elevators are situated at Ninety-sixth Street and the Calumet River. Several boats have been loaded here recently. On the 9th inst. the steamer Siberian took 76,000 bushels of corn, and on the 11th the Pabst took 120,000 bushels. Both were bound for Buffalo. Other boats are expected in daily. Contracts have been let for installing a fire underwriters' fire pump with a capacity of 1,000 gallons per minute, also standpipes and hose connections on all floors. Two dozen No. 2 Miller Chemical Extinguishers, a good supply of fire axes and metal waste cans complete this very important equipment. Henry Weber is superintendent of this plant. The new Elevator "C" is expected to be in working order about October 26.

The Sibley Elevator Co., whose plant is located on the line of the Chicago & Western Indiana Railroad at Thirty-first Street and Stewart Avenue, has received notice to vacate land occupied by them and owned by the railroad company. The site of the company's power plant consisting of a one-story brick detached boiler and engine house, situated east of the elevator on the railroad property, is required by them for the proposed elevation of their tracks. This order will necessitate the removal of building, engines and boilers. This mode of power will be abandoned and a gasoline engine of a large horsepower capacity substituted. A power car unloading shovel has recently been installed at this house. This property is owned by L. M. Fairbanks, operated by the Sibley Elevator Co. and has a storage capacity of 250,000 bushels. The superintendent is Mr. C. M. Dauberman.

ILLINOIS.

William Ernst will build an elevator at Carlock, Ill.

Hugh M. Boone has sold his elevator at Arcola, Ill.

E. Davis has a newly completed elevator at Cadwell, Ill.

R. H. Garrard is no longer in the grain business at Cairo, Ill.

William Callahan will remodel his elevator at Monarch, Ill.

A. F. Hamilton has sold out his grain business at McVey, Ill.

Keefe & Son have sold out their feed business at Springfield, Ill.

Thomas New has enlarged and improved his elevator at Tomlinson, Ill.

W. L. Prescott of Woosung, Ill., has sold out his grain and coal business.

Warren & Co. of Peoria have completed a new elevator at Scottsburg, Ill.

A. C. Schlosser has sold his grain and lumber business at Panola, Ill., to Frank L. Ream.

Odell, Ill., did a booming business in grain during September, the receipts running from 8,000 to 13,000 bushels per day. On one day the north

elevator took in over 280 wagon loads, about one-third of which was oats.

H. B. and E. A. Boyer have purchased the Glassburn Elevator at Tampico, Ill.

The Hayes Grain & Coal Co. are operating a portable elevator at Hayes, Ill.

William McKeever of Gibson City, Ill., recently built a grain elevator on his farm.

H. H. Piper has purchased an 8-horse power gasoline engine for operating his elevator at Yuton, Ill.

Maddock & Gilbert, a new grain firm at Chrisman, Ill., are reported to be doing a good business.

A. J. Hall has purchased the E. J. Jones elevator at Milford, Ill., and placed J. B. Wilson in charge.

Brooks & Smith have bought the elevator formerly owned by W. A. Marshall at Deercreek, Ill.

Howrey & Cuppy of Kemp, Ill., have torn down their old elevator and have a new one nearly completed.

The 125,000-bushel elevator being erected for the Cleveland Grain Co. at Sheldon, Ill., is about completed.

H. B. Rowe & Co. of Mt. Pulaski, Ill., have installed in their elevator a corn sheller of large capacity.

Schultz, Baujan & Co., millers of Beardstown, Ill., will build an elevator at Browning early next spring.

Shearer Grain Co. has completed a new grain elevator at Fairbury, Ill. It has a capacity of 50,000 bushels.

A 25,000-bushel elevator will be built at Burtonview, Ill., by the Gordon Milling & Grain Co. of Lincoln.

The two elevators at Fairland, Ill., are reported to have done a rushing business during the early autumn.

Work is in progress at Grant Park, Ill., on a 125,000-bushel elevator for the Holzman-Bennett Grain Co.

A. T. Munson & Sons have sold their elevator and grain business at Wyckles, Ill., to J. A. Roney of Decatur.

The Turner-Hudnut Co. of Pekin, Ill., will put up a private telephone line between that place and Havana, Ill.

Richardson & Hopkins have completed a new office in connection with their grain elevator at Perdue, Ill.

The Baldwin Mill and Elevator at Dixon, Ill., has been purchased by the Forrest Milling Co. of Cedar Falls, Iowa.

Arthur McLaughlin contemplates building an elevator and going into the grain business at Oquawka, Ill.

The St. Louis Milling Co., Carlinville, Ill., will erect large corn cribs and buy and store corn for their own use.

C. Van Gerpen & Co. are remodeling their elevator at Hartsburg, Ill., and increasing its capacity to 30,000 bushels.

The J. C. Smith elevator at Winchester, Ill., has been purchased by Greenleaf & Co., who have put in a new wagon dump.

Barnard & Leas Mfg. Co. report the sale of one No. 4 Receiving Separator through H. W. Caldwell & Son Co. of Chicago.

The C. M. Seckner Engineering Co. is making plans for a new 100,000-bushel elevator for Leon Enziere at Manteno, Ill.

W. H. Council is rebuilding his elevator at Williamsville, Ill., which was burned in September; capacity, 25,000 bushels.

D. M. Carson of Clarence, Ill., is putting in a new loading spout from the head of the elevator and changing some of the machinery.

The Chillicothe Grain Co., Chillicothe, Ill., has built a roof over its scales—a good move for both the elevator and its patrons.

The Mt. Pulaski Grain Co. have sold their interests at Buffalo Hart, Ill., to Carrington, Hannah & Co. of Chicago, who are putting up a new elevator.

J. B. Carson has just completed a new office building at his elevator at Perdue, Ill. Competent judges say he has one of the best grain offices in the state.

G. T. Burrell & Co. of Chicago have just completed a 15,000-bushel elevator at McDowell, Ill., for Rogers, Bacon & Co. of Chicago. They have commenced work on a 40,000-bushel elevator at

Charlotte, Ill., for the same company, and are also remodeling their elevator at Colfax, Ill.

Improvements and additions have been made to the elevator at Jonesboro, Ill. A new brick and stone engine room was also built.

Fred and Searle Barnett will erect an elevator this fall at Barnett, Ill. It will be a frame structure 20x30 feet and 60 feet high.

Chas. Counselman & Co., Chicago, were recent purchasers of two No. 0 Victor Corn Shellers and two No. 0 Cornwall Corn Cleaners.

Benjamin Hammer of Polo, Ill., has retired from business after 35 years in the grain trade. He sold his elevator to a Mt. Carroll party.

It is reported that F. L. Kidder & Co., the corn millers of Paris, Ill., will build elevator and storage at Mays, Ill., for 100,000 bushels of corn.

Wayne & Co.'s new elevator northeast of Delavan, Ill., is completed. It is a fine building, holding in the neighborhood of 30,000 bushels.

J. H. Williams has purchased property at Farmer City, Ill., and commenced the erection of an elevator. This will make five elevators at that point.

Mr. Hazen has retired from the grain firm of Hazen & Parsons at Philo, Ill. He is succeeded by A. H. Edwards, who had been with the old firm.

The Illinois Central Railroad Company's new 125,000-bushel elevator at Anchor, Ill., has been completed. G. T. Burrell & Co. of Chicago were the contractors.

Roberts, Moschell & Mosiman have completed a new elevator at Cruger and at Groveland, Ill., of capacity 20,000 bushels each. Power is furnished by Webster Gasoline Engines.

Eugene F. Jones of Milford, Ill., has sold his elevator and about 65,000 bushels of oats stored therein to A. J. Hall, a retired farmer of that place. A Mr. Wilson, father of Mrs. Hall, will manage the business.

Clark & Rusk are putting up a large oats bin near their elevator at Rantoul, Ill. It will be 32 feet square, formed into two bins 12x32 feet, with a driveway between. It will be 12 feet high at the eaves and have capacity for about 6,000 bushels.

O. V. Myers & Co. have a finely equipped new grain plant at McCown Station, on the I. D. & W. Ry., in Edgar County, Ill. In connection with the elevator is an oats or shelled corn bin of 18,000 bushels' capacity. The corn cribs will hold over 100,000 bushels.

Risser Bros. of Kankakee, Ill., have doubled up the capacity of their elevator at Bonfield, and have put in a new Fairbanks Gasoline Engine, also a new 12-inch elevator, which now enables them to store about 25,000 bushels of grain, with an ability to load cars at the rate of about 18 per day.

SOUTHERN.

James B. Bours has discontinued his wholesale grain business at Jacksonville, Fla.

F. H. White & Co., of Charlotte, N. C., will add grain to their wholesale grocery line.

O. J. Thurmond has sold his grain and coal business at Danville, Ky., to Will Lillard.

The Port Chalmette terminals at New Orleans were sold on October 6 by order of court.

The Farmers' Milling & Elevator Co. have a new elevator nearly completed at Sparta, Tenn.

M. J. Kavanaugh, Terrell, Texas, has let the contract for building an elevator at that place.

W. T. Campbell has withdrawn from the grain firm of W. C. Price & Co. at Lampasas, Texas.

The Merchants' & Planters' Oil Co. will rebuild its burned cottonseed oil mill at Houston, Tex.

The Oklahoma Mill Co., Kingfisher, Okla., are erecting an elevator in connection with their mill.

The Sewell Hering Elevator Co. of McGregor, Texas, has been incorporated, with a capital stock of \$25,000.

F. C. Meyer & Co. have purchased the business of W. M. Nixon, dealer in grain, hay, etc., at Augusta, Ga.

The Capital City Oil Mill Co., Baton Rouge, La., was a recent purchaser of a cottonseed hull packer from the Barnard & Leas Mfg. Co.

The Amarillo Grain & Coal Co., Amarillo, Texas, has been incorporated, with a capital stock of \$5,000, by Robert Smith, S. J. Brown and J. W. Veale.

Among the recently incorporated cottonseed oil companies, and those who are building or enlarging plants, are the following: Farmers' Cotton Oil Co., Davis, S. C.; Planters' Oil Mill, Tunica, Miss.; Farmers' Oil Mill, Greenwood, S. C.; Red Hill Ginning & Milling Co., Red Hill, Ga.; The Canton

Oil Mill, Canton, Miss.; The Rolling Fork Oil Co., Rolling Fork, Miss.

The Southern Cotton Oil Co., Atlanta, Ga., was a recent purchaser of two No. 3 Barnard Centrifugal Reels, made by the Barnard & Leas Mfg. Co.

Recent sales of the Barnard & Leas Mfg. Co. in the Southern States include the following: To C. R. & D. C. Kolp Jr., Henrietta, Texas, one No. 95 Perfected Separator; S. H. Colwick, Clifton, Texas, one No. 94 Perfected Elevator Separator; Capital City Oil Mill Co., Baton Rouge, La., one cottonseed hull packer; Oswego Seed & Grain Co., Vinita, Ind. Ter., one No. 0 Victor Corn Sheller; Planters' Cotton Oil Co., Augusta, Ga., one cottonseed hull packer.

CENTRAL.

Sam. Finney is rebuilding his elevator at Marshfield, Ind.

The Woodburn Elevator Co. has a new elevator at Gar Creek, Ind.

New machinery is being installed in the Adams Elevator at Bunker Hill, Ind.

The elevator at Wren, Ind., destroyed by fire a few months ago, is to be rebuilt.

Chris Lohse of Eldorado, Ohio, has been making some improvements in his elevator.

The editor of the Dunkirk, Ind., Star thinks that town ought to have a grain elevator.

A. F. Cline has sold his elevator at Bloomville, Ohio, and expects to locate elsewhere.

Buxton & Appleby have purchased the grain business of R. M. Gard & Co. at Circleville, Ind.

An addition is being built to the elevator at Walkerton, Ind., to accommodate a corn sheller.

F. C. Baluss & Co. of Blissfield, Mich., contemplate enlarging their elevator plant next summer.

Winn & Winn are building an addition to, and otherwise improving their elevator at Lucerne, Ind.

Adamson's Elevator at Roachton, Ohio, has been completed and is reported as doing a good business.

John M. Hornung of Greensburg, Ind., is a recent purchaser of a No. 2 Little Victor Sheller and Cleaner.

Harry Randolph Jr. has purchased an interest in and taken charge of the Marlatt Elevator at Covington, Ind.

J. S. Barnes, formerly of Remington, is now located at Frankfort, Ind., where he is shipping grain and hay.

Geo. W. Thompson is now occupying his new warehouse and feed store building at Mingo Junction, Ohio.

The Proffenbach-Magee Elevator at Elmore, Ohio, which was burned last spring, is being rebuilt on a larger scale.

Anderson & Herronmus have bought out the grain business of Thos. S. Davis & Co. at New Madison, Ohio.

H. Griffith's elevator at Columbus, Ind., is to have an addition built to it that will accommodate 25,000 bushels of corn.

Kerlin & Ryan of Delphi, Ind., have sold their grain elevator at Sedalia to Jos. A. Bridge, who is sheriff of Carroll County.

The McMorran Elevator at Port Huron Mich., will probably be rebuilt, but not this year, owing to the high price of material, it is said.

Flushing, Mich., has a new elevator equipped with all modern machinery, including a Hall Distributor, built by J. E. Ottaway & Co.

The machinery in the seed house of Levy & Hirsch at Archbald, Ohio, is now operated by electric power, motors having been installed.

F. A. Jenkins & Co. of Norwalk, Ohio, have opened their recently purchased elevator at Huron, Ohio, under the management of Howard Bell.

Bromfield & Colvin of Bay City, Mich., who have recently enlarged and greatly improved their facilities, have installed a 6-inch duct Hall Distributor.

The Leesburg Grain Co., Leesburg, Ohio, have purchased through the Barnard & Leas Mfg. Co. a No. 1 Willford 3-roller Mill, together with pulleys, belt, etc.

An elevator is being built at Frankton, Ind., for a newly organized company composed of J. P. Shoemaker of Indianapolis; W. H. H. Quick of Anderson, and S. B. Shoemaker and C. Quick of Frankton.

Last month we reported that O. Barnard & Son of Fowler, Ind., had sold out to Coen & Brady of Rensselaer, Ind. This is not correct as Mr. J. F. Barnard, who is the successor of O. Barnard & Son, says he has no intention of selling out. The pur-

chase made by Coen & Brady was the elevators at Kniman and Gifford, from F. G. Barnard.

The Barnard & Leas Mfg. Co. report a sale through the Nurdyke & Marmon Co. of Indianapolis of one No. 96 and one No. 87 Perfected Elevator Separator.

W. B. Cooley will build elevator No. 2 on the L. E. & W. right-of-way at Hartford City, Ind. It will be of 15,000 bushels' capacity. Work is to be started on it at once.

C. E. Dennis of Windfall, Ind., has purchased the elevators at Nevada and Hemlock. They will be operated by George Wood, who owns elevators at Windfall and Curtisville.

The Bourbon Elevator and Milling Co. of Bourbon, Ind., is building a 75,000-bushel elevator at that place. The C. M. Seckner Engineering Co. has the contract for its construction.

H. H. Parrish of Bellefontaine and M. Morton of East Liberty have leased and will operate the G. D. Peters elevator at Zanesfield, Ohio. Ed. A. Cox has been retained in their employ.

Ludeman & Walter have succeeded A. & E. H. Wolcott in the grain business at Wolcott, Ind., which the latter have conducted since 1870. They will give their attention to other lines of business.

The Union Grain & Hay Co. of Cincinnati has leased E. D. Moore's hay warehouse and grain elevator at Lawrenceburg, Ind., on the Big Four. Mr. Moore is acting as manager and the business will be conducted in conjunction with that at Cincinnati.

The safe in the office of Robert Booth's grain elevator at Dryden, Mich., has been wrecked and robbed for the third time within a year. His loss this time is \$100 cash and \$300 damage. Mr. Booth and neighbors pursued the burglars, but were unable to capture them.

The Cleveland Grain Co. are building at Fowler, Ind., a number of new corn cribs. One of 35,000 bushels and another of 34,000 bushels have been completed and two more are to be built, giving them a total storage capacity at that point of about 300,000 bushels.

One of the latest and best equipped grain elevators in Ohio has just been completed for Messrs. Keck & Christman Bros., seed and grain dealers, Bryan, Ohio. It was built by the Breden-Fox Engineering and Construction Company, Toledo, Ohio; capacity, 45,000 bushels; 35-horse power Fairbanks-Morse Gas Engine, Fairbanks 1,000-bushel Hopper Scale, equipped with Demuth's unerring check beams. No expense was spared in making this elevator a model.

EASTERN.

E. W. Eddy is building a grain warehouse at Center, W. Va.

W. H. Nasón & Co. have opened a grain store at Springvale, Me.

The grain firm of Powers & Co., at Boston, Mass., has been dissolved.

W. A. Cowley is enlarging his grain house at East Concord, N. H.

The White Star Mills of Staunton, Va., will build a grain elevator at Brownsburg.

A sidetrack has been laid to L. N. Johnson's grain warehouse at Franklin, N. H.

A bucket elevator is being installed in J. F. Eldredge's grain store at Orleans, Mass.

Harry Underwood and James Bell have engaged in the grain business at Saxonville, Mass.

Willis Trow has purchased the grain and feed business of George Hart, at Sunapee, N. H.

William Chaplow of Fall River, Mass., is building an additional storeroom for hay and grain, 40x75 feet.

G. B. Pope's grain store, at Waltham, Mass., was robbed of \$13 and an overcoat one night last month.

M. L. Fox has sold his interest in the grain firm of Porter & Fox at Wilmington, Vt., to H. A. Wheeler.

The grain business of Jacob K. Adams, at Warner, N. H., is now being carried on by his son, C. W. Adams.

Work has been begun on a large elevator at Clarksburg, W. Va., which will be completed by the first of the year.

Sitley & Son of Camden, N. J., have completed their elevator at Gloucester, and Walter Allen has been placed in charge of it.

T. W. Wood & Sons, the seedsmen, of Richmond, Va., have been awarded a gold medal on their exhibit at the Paris Exposition.

The Chesapeake & Ohio's large new Elevator B at Newport News, Va., was put in operation for the first time on September 25. There was scarcely

any difficulty experienced in operating the machinery, which was very gratifying to all parties concerned.

The Langner Milling Co. has been incorporated at Buffalo, N. Y., by Fred O. Langner and others, to do a flour and grain business.

The Unadilla Flour & Feed Co. is the name of a new concern that will operate a retail flour, feed and grain business at Unadilla, N. Y.

Wilson & Wolven, large dealers in grain, flour, hay, etc., at Kingston, N. Y., are enlarging their storage capacity and making other improvements.

The Bengert Bros. Grain & Produce Co. of Paterson, N. J., have incorporated with a paid-up capital of \$2,500. The incorporators are Frank and George Bengert and Robt. J. McDermott.

Swan & Sibley Co., Belfast, Me., have put in their warehouse a marine leg for unloading grain from vessels in the warehouse. They are also putting in an elevating leg for unloading cars.

The Churchill-White Grain Co. has contracted with the C. M. Seckner Engineering Co. for a new 500,000-bushel elevator at Buffalo, N. Y. The working house embraces six iron tanks of capacity of 75,000 bushels each. It is expected the elevator will be completed by January 1.

The Steel Storage & Elevator Construction Co. of Buffalo have a contract to build for the American Linseed Co. a 2,500,000-bushel elevator, to replace the Eastern Elevator, which burned some time ago. Work was commenced on the foundation three weeks ago. The plant is to be constructed entirely of steel and concrete. It will be operated by Niagara electric power and is expected to be ready for business by April 1 next year.

MISSOURI, KANSAS AND NEBRASKA.

J. S. Winget has a new elevator about completed at Albert, Kan.

The Farmers' Elevator Co. at Hooper, Neb., is being reorganized.

J. H. Yarbrough has sold out his grain business at Waynesville, Mo.

Frank Bailey recently purchased a grain elevator at Weeping Water, Neb.

H. H. Troth has sold out his grain and feed interests at McCook, Neb.

Herman F. Probst has sold out his grain business at Bluff City, Kan.

S. L. Whiting has bought out T. P. Burns' grain business at Bartlett, Kan.

The Kinsella Grain Co. have just put up a new elevator at Marietta, Kan.

Earle Fisher has succeeded Lewis Fisher in the grain business at Peru, Neb.

The Hastings Milling Co., Hastings, Neb., is about to build a new elevator.

The Barton County Mills, at Great Bend, Kan., have their new elevator in operation.

Harlan Richey has withdrawn from the feed firm of Richey Bros. at Holton, Kan.

H. W. Skinner has sold his elevator at Nortonville, Kan., to Wm. McKibben of Goffs.

Michael Korth has succeeded to the grain business of Bodewig Bros. at Humphrey, Neb.

Carey & Schmidt have sold their elevator at Freeport, Kan., to the J. L. Strong Grain Co.

O'Brien & Erwin have succeeded Vaughn & O'Brien in the grain business at Quenemo, Kan.

J. V. Ainsworth has sold his elevators at De-weese and at Angus, Neb., to George W. Lowrey.

Seeley, Son & Co. have just installed a 60-ton track scale for Pierson D. Smith of St. Edward, Neb.

The Ozark Water Mill Co., Ozark, Mo., have completed and filled with wheat a 14,000-bushel elevator.

Fred Uehling of the Wausa Roller Mills, Wausa, Neb., is completing a grain elevator, making the fourth in that town.

The Dowling-Purcell Co. have purchased two 6-inch, 12-duct Hall Grain Distributors for their new buildings at North Bend, Neb.

The Nye & Schneider Co. of Mason City, Iowa, in erecting a new elevator at Shickley, Neb., are installing the Hall Distributor.

The Omaha Elevator Co. has closed up its elevator at Cozad, Neb., for this season, because of insufficient grain being marketed there to make it pay.

Recent sales of the Barnard & Leas Mfg. Co. include one No. 1 Victor Corn Sheller and one No. 1 Cornwall Corn Cleaner, to Seeley, Son & Co. of Fremont, Neb. Also one No. 2 Victor Corn Sheller

and one No. 2 Cornwall Corn Cleaner to the Trans-Mississippi Grain Co., Omaha, Neb.

The firm of Cortelyou Bros. at Corning, Kan., has been dissolved and the business of the old firm continued by P. J. Cortelyou.

Wallace Bros., Lebanon, Mo., have sold their elevator, which they advertised in the "American Elevator and Grain Trade" last month.

Emry Marshall, a well-to-do farmer, has purchased E. J. Irland's elevator at Weeping Water, Neb. He took possession on October 1.

It is reported that the Rex Mills of Kansas City, Mo., will soon build a 50,000-bushel elevator to give them additional storage for wheat.

The Beall Grain Co., Kansas City, Mo., has been incorporated with a capital stock of \$5,000, by G. E. Thayer, Benj. R., E. E. and W. M. Beall.

O'Shea & McBride, Madison, Neb., will equip the elevator which they recently purchased at Humphrey, Neb., with two Hall Grain Distributors.

The Nebraska Elevator Co. are doubling the capacity of their elevator at Agnew, Neb., to enable them to better handle the large corn crop of that vicinity.

M. B. Sherwood has purchased the grain and implement business of R. M. Hines at Brashear, Mo., and is in the market for certain machinery for the elevator.

Seeley, Son & Co. are building an addition to the elevator which they recently completed for C. R. Wright at Genoa, Neb. It will be used for sacking feed and grain.

The Capital Elevator Co., Topeka, Kan., received, among several similar orders last month, one for 50,000 bushels of wheat, to be shipped to Minneapolis, Minn.

The Greenleaf-Baker Grain Co. of Atchison, Kan., has voluntarily given its elevator laborers an increase in wages from 15 to 17½ cents an hour, and 20 cents for nights and Sundays.

The Farmers' Grain & Supply Co. of Hastings, Neb., have completed and put into operation a fine little elevator, with steam power, at Brennan Station, on the Grand Island Railway.

The United Elevator and Grain Co. of St. Louis has elected the following directors for the ensuing year: J. B. M. Kehler, Peyton T. Carr, H. F. Langenberg, W. C. Ellis and H. A. Haenssler.

The Hastings Milling Co., Hastings, Neb., sold their elevator on the St. Joe & G. I. to the T. W. Smith Grain Co. and at once commenced the erection of an elevator adjoining their mill. It will be 34 feet square, 40 feet high and have a capacity of 14,000 bushels.

The Kinsella Grain Co. are building a 25,000-bushel elevator at Colon, Neb. The contract was let to Seeley, Son & Co. of Fremont. The elevator is to be fitted with a corn sheller and cleaner and a fan for taking the dust out of the grain in the pit, also two stands of elevators. All will be driven with a 15-horse power gasoline engine.

H. H. Easterday & Co. are building a substantial elevator at McCook, Neb., to take the place of one destroyed by fire last summer. It will be 34x26 feet, 46 feet high, with a pit under the building that will make the total height inside 66 feet. It will be equipped with hopper scale, cleaners, etc. Grain from other small elevators managed by this firm will be handled through this house.

The old J. B. Wright flaxseed elevator at Lincoln, Neb., has been purchased by the firm of H. O. Barber & Sons and is now being remodeled into a grain cleaning house. The Barbers were formerly in the Central Granaries Company, but began a business of their own last June. They have started a line of elevators in Nebraska and will use their new house for mixing, cleaning and to a small extent for storage.

IOWA.

G. H. Norton is improving his elevator at West Bend, Iowa.

August Lau of Klemme has sold his elevator at Meservey.

W. J. Graham is to build an elevator at Nassau, Iowa, this fall.

The new Rossing Elevator at Ottosen, Iowa, is now in operation.

The new Fanton Elevator at Belle Plaine, Iowa, is now in operation.

The new elevator at Joice, Iowa, is now doing business, with Iver Lockrem as buyer.

The Des Moines Elevator Co. has purchased the O. L. Horton elevator at Wiota, Iowa.

The Barnard & Leas Mfg. Co. recently sold, through Younglove, Boggess & Co. of Mason City,

Iowa, one No. 3 warehouse separator and one No. 2 Cornwall Corn Cleaner.

Erickson & Larson have just completed a new elevator and warehouse at Roland, Iowa.

Isham & McCall are the successors of Albro & Isham, grain dealers at Esterville, Iowa.

The Dysart Grain Co. have installed a Hall Grain Distributor in their elevator at Woden, Iowa.

The Neola Elevator Co. of Chicago has incorporated in Iowa with a capital stock of \$25,000.

Bingham & Johnston have disposed of their grain business at Estherville, Maple Hill and Luzon, Iowa.

Fred W. Fowler has succeeded Fowler & Holmes of Des Moines, Iowa, as wholesale dealers in hay, etc.

L. K. Page is the successor of Gray & Babcock at Ida Grove, Iowa. He has engaged Ferg. O'Brien as buyer.

Robert K. Eby has disposed of his grain and implement business at Adair, Iowa, to O. R. Savage, for \$8,600.

The St. Paul & Kansas City Grain Co. opened their elevator at Spencer, Iowa, last month with T. Lacey in charge.

The new grain plant of the Nye & Schneider Co. at Dougherty, Iowa, is completed. It is equipped with a Hall Grain Distributor.

The Spencer Grain Co. have been running their cleaning and transfer elevator at McGregor, Iowa, with both day and night shifts.

A Hall Grain Distributor has been purchased by the Nye & Schneider Co. of Mason City, Iowa, for their new building at Stout, Iowa.

G. M. Gwynn of Essex, Iowa, has his new elevator about ready for business. He has temporarily been using a portable dump.

The Ivens Grain Co. are enlarging their elevator at Persia, Iowa, and have purchased a 25-horse power gasoline engine to operate it.

The four elevators at Sioux Center, Iowa, are reported to be doing a good business this fall, the only drawback being an occasional shortage of cars.

The St. Paul & Kansas City Grain Co. recently purchased the Interstate Grain Co.'s elevator at Devon, Iowa, and substituted a gasoline engine for the horse power.

Sampson & Livingston is the name of the firm which has succeeded to the grain business of Sampson & Montgomery at Washington, Iowa. The new firm intend to build an elevator this fall.

E. G. Simpson of Marne, Iowa, has taken charge of several elevators on the B., C. R. & N., including one at Iowa Falls, operated by J. C. Jackson. Mr. Simpson will make Iowa Falls his headquarters.

WESTERN.

F. H. Badger is building an elevator at Timnath, Colo.

The Moscow Grain Co. has completed its new warehouse at Moscow, Wash.

The Ranchmen's Elevator Co., Hooper, Colo., started up their elevator last month.

Harry Bantz has leased commodious new buildings for his grain business at Riverside, Cal.

G. L. Andrews of Laconner, Wash., shipped to the Seattle Cereal Co. last month 5,600 sacks of new oats.

C. A. Peplow & Co., millers and grain buyers of Great Falls, Mont., have rebuilt their burned elevator.

A wholesale and retail grain and feed store has been opened at Centralia, Wash. J. W. Bunn is the manager.

Mrs. M. P. Nelson is completing a 50,000-bushel elevator in connection with her flouring mill at Conejos, Colo.

The Barnard & Leas Mfg. Co. recently sold a No. 2 elevator separator through the Vulcan Iron Works, San Francisco, Cal.

A roof has been built over the driveway and dump at the elevator of the Monte Vista Mill & Elevator Co. at Monte Vista, Colo.

Henry Ackerman, a farmer who delivers his grain to Lacrosse, Wash., is said to have raised 35,000 bushels of wheat this year. He uses two headers and thrashes directly from them.

The Tacoma Warehouse & Elevator Company Tuesday broke a record while loading the Breconshire with grain for the Orient. In nine hours 2,500 sacks were put in the ship through one hatch, which exceeds, by several hundred, the best previous record on the Pacific Coast. This record, which was also made by the same company, was 1,926 sacks in the same period of time. The record this week

was made without any preparation and under the ordinary circumstances.—West Coast Trade, Tacoma.

G. C. Turner closed the Pacific Coast Elevator Co.'s warehouse at Downing Station, Ore., last month, because of its being full of grain.

The Columbia River Mill Co. has enlarged one of its grain warehouses at Wilbur, Wash., and also built two others, 40x150 feet and 40x200 feet.

P. M. Lyse has purchased an interest in the grain, lumber and implement business of H. M. Hansen at Wilbur, Wash., and the firm is now Hansen & Lyse.

W. M. Scott, a wheat grower of Helix, Ore., has 10,000 sacks of wheat in store in his own warehouse. The average yield was 30 bushels to the acre.

WISCONSIN AND MINNESOTA.

J. S. Smith has a new elevator at Pardeeville, Wis.

The new elevator at Ada, Minn., is now handling grain.

J. U. Miner is rebuilding his elevator at Stanton, Minn.

The Monarch Elevator at Stewart, Minn., is completed.

A small new elevator has just been completed at Hutchinson, Minn.

A 30,000-bushel elevator is to be built at Bloomington, Minn., at once.

A new dump scale has been put in at the Pacific Elevator, Clarkfield, Minn.

An elevator 30x60 feet is being built at Clintonville, Wis., by the Cahill Company.

A new elevator has just been erected by the Monarch Elevator Co. at Clinton, Minn.

L. Schnell has purchased a Hall Distributor for his new elevator at St. Charles, Minn.

The Sheffield Milling Co. of Faribault are about to build an elevator at Elysian, Minn.

The Exchange Elevator Co. is rebuilding its burned elevator at Bird Island, Minn.

The Great Western Elevator at Morton, Minn., is now operated by a gasoline engine.

James Crahan has sold the grain warehouse at Merrimac, Wis., to James Curry of Lodi.

The Hubbard & Palmer Elevator at Beaver Creek, Minn., was completed last month.

H. P. Christ is building an elevator 24x28 feet at Wausaukee, Wis., on the C. & M. & St. P. Ry.

The Exchange Grain Co., Sumter, Minn., have put up an inclosed driveway at their elevator.

A new elevator has been built at Judson, Minn., on the New Ulm cut-off of the C. & N. W. Ry.

L. Shepard has put in a scale at Fisher, Minn., and will buy grain and load it direct into cars.

An elevator and feed mill is being built at Eau Claire, Wis., by Chas. Bergman and Mat Kramer.

Bingham Bros. of New Ulm have placed an Evans Wagon Dump in their elevator at Gilfillen, Minn.

The E. M. Wallbridge elevator at Echo, Minn., has been purchased by the James Quirk Milling Co.

A grain warehouse has just been built at Clintonville, Wis., by the Cargill Company of Green Bay.

The Helmer Milling Co., Fond du Lac, Wis., will probably rebuild their mill and elevator plant at once.

The Eagle Roller Mill Co. have placed an Evans Wagon Dump in their new elevator at New Ulm, Minn.

A 6-horse power gasoline engine has been installed in the Peavey Elevator at Bird Island, Minn.

The Cargill Elevator Co. has completed a new elevator at Borup, Minn. Geo. Lillie of Felton is the buyer.

The Benton & Rainey Co. of Minneapolis, Minn., has changed its name to the Minnesota Linseed Oil Co.

The Farmers' Elevator Association, Eagle Bend, Minn., have leased their new elevator to I. C. Stevens.

W. A. Morin is building a grain elevator at London, Minn., a station on the Albert Lea & Southern Railway.

D. L. James is building a 20,000-bushel elevator at Van Dyne, Wis., to replace the one destroyed by lightning.

Seymour Carter has ordered through W. M. Sherer, agent for the S. Howes Co., a wheat drier for his elevator at Hastings, Minn. He already has

an Eureka wheat washing and drying outfit in his mill at that place.

Nels Stenson of Dawson has purchased an elevator at Lafayette, Minn., and will make his home at that place.

J. C. Byrnes has purchased the Farmers' Elevator at Wells, Minn., and will operate it in connection with his own.

G. Stob recently completed a small elevator at Clara City, Minn., and N. W. Williver is buying grain for him.

The Lambertson Elevator Co., Winona, Minn., has purchased from the Barnard & Leas Mfg. Co. a No. 2 12-section Barnard Boiler.

The Barnett & Record Co. has taken the contract to build a 75,000-bushel grain elevator for Loftus & Kerwin, at St. Paul, Minn.

Follett Bros., Sherburne, Minn., have sold their elevator to the Great Western Elevator Co., who have moved it to the M. & St. L. tracks.

The Pioneer Steel Elevator Co. of Minneapolis, Minn., is increasing the capacity of its fireproof plant by the erection of five additional steel tanks.

Peter Plein of Menahga, Minn., recently sold the wheat in his elevator to the Interstate Grain Co. and will not operate the house for the present at least.

Ryan & Berg of Luverne have sold their elevator at Kenneth, Minn., to Howard & Bemis, who already owned one of the three elevators at that place.

Allyn Bros. have sold their elevator at Madison Lake, Minn., to the Sheffield Milling Co. of Faribault. Linn Presnall will probably be continued as buyer.

The Milwaukee Elevator Co., Milwaukee, Wis., recently purchased from the Barnard & Leas Mfg. Co. two 60-cylinder barley cleaners and two No. 3 elevator separators.

The Farmers' Elevator at Buffalo Lake, Minn., was sold at auction last month. It was bid in by a representative of the Exchange Grain Co. of Minneapolis, for \$2,830.

The Farmers' Elevator at Vining, Minn., was completed last month. Wheat in that vicinity turned out from 3 to 15½ bushels, which is also of rather poor quality.

A number of improvements have been made on the Farmers' Elevator at Belgrade, Minn. D. S. Christenson, the buyer, rejoices especially in the new dump and scale.

The St. Anthony & Dakota Elevator Co. has amended its articles of incorporation, changing its headquarters to Minneapolis and increasing its capital stock to \$1,000,000.

Jos. Duvall & Son of Kewaunee, Wis., have purchased at receiver's sale the elevator of the Kewaunee Grain Co. at Casco, for \$1,760. They are now operating the plant.

It is reported that the Peavey system of elevators throughout the Northwest will this winter handle lignite coal, and that a contract for 75,000 tons has been made with the mines.

P. B. Smith, manager of the St. Anthony & Dakota Elevator Co. of Minneapolis, is credited with saying that his company's line of elevators will handle only 40 per cent of the wheat it did last year.

The Nye & Schneider Co., Mason City, Iowa, have placed Evans Wagon Dumps in their new elevators at Cordova and Fairmont, Minn. They have also installed a Hall Grain Distributor at the former place.

A 12-horse power gasoline engine has been installed in the H. W. Stone Elevator at Benson, Minn. It takes the place of a 5-horse power engine and will give sufficient power to run a wheat cleaner, etc.

The Elbow Lake Grain Co. of Elbow Lake, Minn., formerly the Farmers' Elevator Co., report a balance in the treasury from their year's business, after paying all obligations, of \$682.22. Sven Oversea was again engaged as buyer.

M. T. Dill, who has bought grain at Prescott, Wis., for thirty-three years, has associated with him Geo. S. Hollister and Fred Bletsoe, who have been in his employ for many years, and Ed. H. Wallace, formerly with the Amenias & Sharon Land Co. at Amenias, N. D. The firm name is the M. T. Dill Grain Co.

The Consolidated Elevator Co. of Duluth have ordered another Hess Pneumatic Grain Drier, a duplicate of the one erected for them last year. When completed this company will have facilities for drying 25,000 to 40,000 bushels of damp grain every twenty-four hours, making the greatest capacity of any drying plant in the Northwest. With

the great amount of damp wheat in the territory tributary to Duluth, it is expected the driers will run at full capacity all winter.

At a recent meeting of the Farmers' Elevator Association, Graceville, Minn., the buyer was instructed to receive and store the wheat of stockholders for 30 days free of charge and at ½ cent per bushel for each month thereafter.

The Great Western Elevator at Ulen, Minn., is now open for business with Hans Moebeck in charge as usual. During the summer the capacity of the house was doubled and a gasoline engine added. New coal sheds were also built.

The Jackson Milling Co. of Stevens Point, Wis., has secured an elevator at Tomah and also a warehouse for flour and feed. They will buy grain and sell flour or exchange the latter for the former. Frank Kern has been placed in charge of the business at this point.

The Northern Grain Co. expect to handle much more grain and produce this year at Eau Claire, Wis., than ever before. They are building a frost-proof underground storage for potatoes. They will build a warehouse for baled hay, and a mill for corn, buckwheat and feed.

The New Richmond Roller Mills Company of New Richmond, Wis., has bought the Northern Grain Company's line of elevators on the Chicago, St. Paul, Minneapolis & Omaha in Wisconsin, Nebraska, Iowa and Minnesota. The elevators will be operated by the new owners this season.

The Northern Grain Company have ordered a large Hess Pneumatic Grain Drier to be erected for them at their plant in Manitowoc, Wis. This will be placed in a detached brick housing near the elevator. The company has immediate use for it and will put it in operation this month.

The Barnett & Record Co. have just completed a 25,000-bushel elevator for W. P. Davidson at Gilfillen, Minn. The elevator is equipped with the Gerber Grain Distributor, Fairbanks 6-horse power Gasoline Engine, Fairbanks Dump Scales with the Evans Wagon Dump and a No. 10 Clipper Cleaner.

The Brooks-Griffith Co. of Minneapolis has purchased the Pillsbury Elevator located on the Great Northern tracks in that city. Its capacity is 600,000 bushels and the sale is said to have included about 100,000 bushels of wheat which was in store. The elevator will be used for the storage of wheat and coarse grains.

The Barnett & Record Co. has just completed a line of five elevators on the Great Northern Ry. for the National Elevator Co. of Minneapolis. The capacity of each is 30,000 bushels. They are equipped with Otto 5-horse power Gasoline Engines, Howe 16-foot Dump Scales with Evans Wagon Dump, and Gerber Grain Distributor.

THE DAKOTAS.

Work is in progress on the Farmers' Elevator at Hurley, S. D.

Frankfort, S. D., has five elevators and a flour mill buying grain this fall.

Furber & Hay are now doing business in their new elevator at Britton, S. D.

J. F. Mager will build an elevator in connection with his flour mill at Walhalla, N. D.

R. Fleming has a new elevator at Dresden, S. D. He has bought grain at that place for two years.

The Adams Elevator at Albee, S. D., has been opened for business with Emil Bunting as manager.

J. W. Lahart has sold his interest in the Dakota Elevator Co. to Arbogast Bros. of New Rockford, N. D.

The Brooks Elevator Co. have substituted a gasoline engine for the horsepower in their elevator at Brinsmade, N. D.

The St. Anthony & Dakota Elevator Co. will install a Hall Grain Distributor in its new elevator at Kindred, N. D.

The Northwestern Elevator Co. have just completed extensive improvements on their elevator at Forrestville, S. D.

The McLaughlin Elevator Co. of Cando, N. D., have installed a Hall Grain Distributor in their elevator at Maza, N. D.

The Royal Elevator Co.'s new elevator at Kenmore, N. D., was opened for business last month, with Joe King in charge.

The machinery equipping the new elevator of the McLaughlin Elevator Co. at Cando, N. D., includes the Hall Distributor.

A 30,000-bushel elevator has been completed at Enloe, N. D., for the National Elevator Co. by the Barnett & Record Co. It is equipped with a Web-

ster Gasoline Engine, Howe 13-foot Dump Scale, with Evans Dump and Gerber Grain Distributor.

The Imperial Elevator Co. will build an elevator at Granville, N. D., this fall, as there is a large amount of flax in that vicinity.

A. K. Tweto recently completed an elevator at Abercrombie, N. D., at which place he has been buying grain for several years.

The sixth elevator at Wentworth, S. D., has just been completed by Abraham & Schutze. Three other new elevators have been built there this year.

The Astoria Farmers' Elevator Co. of Astoria, Deuel County, S. D., has been incorporated, with a capital stock of \$5,000, by C. J. Peterson, A. E. Distad and others.

The Harvey Milling Co. of Harvey, N. D., have made some alterations in their elevator and will be numbered among the several flax buyers in that market this year.

The Lake Preston Milling Co. has been granted a site for an elevator at Astoria, S. D., by the state board of railroad commissioners. They expect to build an 18,000-bushel elevator.

The Barnett & Record Co. has completed a 40,000-bushel elevator for O'Loughlin Bros. at Bisbee, N. D. It is equipped with Otto Gasoline Engine, Howe 16-foot Dump Scales, with Evans Dump and Gerber Distributor.

The Barnett & Record Co. has completed a 30,000-bushel elevator for the St. Anthony & Dakota Elevator Co., at Galtchutt, N. D. The elevator is equipped with Otto 5-horsepower Gasoline Engine, Howe 16-foot Dump Scales, Evans' Wagon Dump and Hall Distributor.

Matt Yost, an elevator agent at Mantador, N. D., had a runaway, and when he went to catch the horse he left his grip, containing \$500, in the buggy. When he returned he found the money stolen. The guilty parties were arrested and taken to Wahpeton, where they confessed and returned \$400. The balance will probably be paid, as the boys' parents are well-to-do farmers.

CANADA.

Rae & Alexander have purchased Schaefer Bros' elevator at Milverton, Ont.

A 25,000-bushel elevator is being built at Caron, Man., by the grain firm of Baker & Reid of Winnipeg.

The Northern Elevator Co. of Winnipeg has its new elevator at Treherne, Man., completed and in operation.

The Northern Elevator Co. of Winnipeg are putting a drying plant in their elevator at Emerson, Manitoba, for drying all damp and tough wheat shipped via Duluth.

J. G. King & Co., lessees of the Canadian Pacific Railway Elevator at Port Arthur, are installing additional drying machinery to increase the capacity to 30,000 bushels daily.

The Meaford Elevator Co., Meaford, Ont., has been incorporated with a capital stock of \$130,000. The provisional directors include J. E. Botsford, F. D. Jenks and W. L. Jenks, all of Port Huron, Mich.

Work was commenced October 2 on the site of the Connors Syndicate elevators. It is said that the work will continue until the working house of 1,000,000 bushels is completed. Then a storage capacity of 2,000,000 bushels will be added.

Thos. H. Metcalfe, of Metcalfe & Son, Portage la Prairie, Manitoba, visited Chicago recently and completed arrangements for the installation of a Hess Pneumatic Grain Drier in his elevator and oatmeal milling plant. Besides the regular steam coils for drying tough wheat, the drier ordered has a furnace attachment for parching oats with fire heat for milling, which does the work in much less time than the old kiln method.

NEW PADDOCK-HODGE ELEVATOR.

The new elevator on the Michigan Central R. R. yards at Toledo, known as the Michigan Central Elevator, built by the Paddock-Hodge Company of Toledo, has been finished and is in working order.

The house has handling capacity of 200,000 bushels per day, 100,000 bushels unloading and 100,000 bushels loading, and the oat clippers have a capacity for 50,000 bushels daily. The grain is unloaded and elevated to 2,000-bushel garners above 86,000-pound Fairbanks Hopper Scales.

Grand Rapids, Mich., is to have a wheat inspection service. D. R. McEachron, who is connected with the Voigt Milling Company, has been appointed as inspector.

CROP REPORTS

The wheat yield in Michigan this year is estimated at seven bushels to the acre.

The United States Department of Agriculture estimates the world's 1900 wheat crop at 2,587,000,000 bushels, as against 2,725,000,000 bushels last year.

Heavy thunderstorms visited portions of Wisconsin during the first week in October, the rain falling in torrents and damaging corn, corn fodder and buckwheat.

The latest official report of the French wheat crop for 1900 estimates the yield at 109,925,960 hectoliters, or about 304,000,000 bushels. This is considerably below the average of the past six years.

The estimates of the United States wheat crop for 1900, which have been made public, range from the Cincinnati Price Current's 550,000,000 bushels down to 475,000,000 bushels by C. W. Davis in the Kansas City Journal.

Beerbohm's estimate of the world's wheat crop for 1900 is 309,100,000 quarters of 480 pounds each, or 2,472,800,000 bushels. He gives the figures for the crops of 1899 and 1898 at 331,600,000 and 338,050,000 quarters respectively, showing a considerable falling off in 1900.

The official Kentucky report for October 1 gives the condition of corn, as compared with the 10-year average, 88.5. Wheat, 91.6. The seeding of barley as compared with 1899 is 74, and rye, 83. The clover seed crop in the state is short and the blue grass seed is not up to the yield of last year.

Corn in Illinois was reported practically all safe from frost October 1, and a large yield is being cribbed all over the state. Fall seeding has been done earlier than usual, and in some parts of the state wheat and rye are already up. The wheat acreage seeded promises to be somewhat smaller than usual.

The official estimate of crop yields of Iowa for the current year is as follows: Corn, 8,618,660 acres, averaging 41 bushels an acre, with total product of 353,365,060 bushels, which is greater by 18,000,000 bushels than ever before harvested in the state; the total of all cereals will be 531,349,000 bushels, which is 10,000,000 bushels in excess of any previous year and 131,000,000 above the yearly average of the last ten years.

Clover seed shows a considerable shrinkage in acreage. King's report of September 25 shows very little clover seed in Ohio; about one bushel per acre in Indiana, with acreage below the average; about the same report from Illinois; Michigan, a smaller crop than was expected; Missouri, one report of a yield of from three to three and one-half bushels per acre. The conditions seem to be below the average of the last eight years.

Stacking and thrashing were badly interfered with by heavy rains in North Dakota immediately after harvest. Thousands of acres of grain in the Red River Valley are said to be so poor they will never be thrashed. The ground is so soft that the cutting of late flax has been retarded. Much difficulty has been experienced in some quarters in securing the second crop of hay, which would be good if cut and cured before spoiling. Corn in North Dakota is reported to have escaped the frosts.

The Ohio State Board of Agriculture has received reports showing that the wheat crop of that state this year amounted to only 10,139,187 bushels, which was an average yield of six bushels per acre harvested and 3.72 bushels per acre sown. Of this acreage 38 per cent was plowed up last spring as worthless. This is the lightest wheat yield in Ohio for half a century. The total yield of oats is 45,866,988 bushels; of barley, 806,224 bushels; rye, 420,456 bushels. The prospect for corn October 1 was 95 per cent of a full crop.

GOVERNMENT REPORT.—The monthly report of the Statistician of the Department of Agriculture shows the average condition of corn on October 1 to have been 78.2, as compared with 80.6 last month, 82.7 on October 1, 1899, and 81, the mean of the October averages of the last ten years. While the decline during September was not serious, it extended to almost every important corn-growing state, the crops of Ohio, Missouri, Nebraska and Virginia alone holding their own. There was a decline of one point in Indiana, three points in Illinois, Kansas and Texas, and four points in Iowa. The preliminary estimate of the yield per acre of oats is 29.6 bushels, as compared with 30.7 bushels last year, and a 10-year average of 26.2 bushels. Of the states having one million acres or upward in oats, Ohio and Illinois show an average yield per acre of 38 bushels, Iowa 34 bushels, Indiana 32.7, Wisconsin 32, Kansas 31.6, Pennsylvania 31.1, New York 27.9, Minnesota 25.2 and Nebraska 21.8 bushels. The average for

quality is 89.2, against 89.5 last year, and 83.3 in 1898. The preliminary estimate of the yield per acre of barley is 20.4 bushels, as compared with 25.5 bushels last year, and a 10-year average of 23.5 bushels. Rye, 15.1 bushels, as compared with a 10-year average of 14 bushels. Buckwheat, 72.8 compared with 82.2.

On October 1, according to the South Dakota state crop report, thrashing in that state had been delayed by cool and wet weather and the consequent damp condition of wheat and flax stocks. Where thrashing had been done, the yield of wheat, oats, barley and rye and flax was very uneven and the quality variable, but best in the extreme south-eastern counties. Reports indicate that there is much poor grade wheat, oats and barley and some poor grade flax in the middle and northern counties, and that some wheat is unmarketable, the cause being damage in stack by wet weather. Corn cutting was practically completed and the corn generally had cured well.

The Michigan report, issued by the Secretary of State, for October 1, says: Wheat—The total number of acres on the ground last April, as returned by the supervisors, was 1,606,164. Of this amount 1,265,524 acres were in the southern counties, 253,185 in the central counties and 87,455 in the northern counties. According to the reports received from crop correspondents, 76 per cent of the number of acres of wheat on the ground were harvested. This would indicate that the total number of acres of wheat that was harvested was, in the southern counties 937,615, in the central counties 205,553, in the northern counties 74,337, and in the state 1,217,505 acres. The final estimated yield per acre for the number of acres harvested is, in the southern counties 7 bushels, in the central counties 9 bushels, in the northern counties 9 bushels, and in the state 8 bushels. From this we would estimate that the total yield for 1900 is 10,000,000 bushels. The acreage sown this fall as compared with an average is 74. The average date of sowing wheat in the southern counties is September 24, in the central and northern counties September 20. Oats—The estimated average yield per acre in bushels is 36. The estimated average yield per acre is 39 in the southern counties, 31 in the central counties, 30 in the northern counties, and 36 in the state. The estimated yield of beans per acre in bushels is 12. The total acreage of buckwheat is 22,702. The average yield per acre in bushels is 14.

IN THE COURTS

The Spokane Grain Company has sued I. H. Herold for \$225 alleged to be due on failure to fill a contract for timothy hay.

Application was made in the Supreme Court at Buffalo for an order dissolving the Eastern Elevator Company. The order was issued, returnable January 10, 1901. The company's property has all been sold under foreclosure proceedings.

J. B. Oliver, a grain dealer at Milwaukee, on October 10 began an action at Milwaukee against Raymond & Pynchon of Chicago for \$3,100 and garnished funds of the defendants in Chicago banks. No declaration was filed and the basis of the suit is unknown.

The Wabash Railroad Company has sued the Toledo and Wabash Elevator Company to recover \$23,319.25 with interest since 1894. The amount is claimed to be due for commission on grain and charges for carrying it. It is claimed by the plaintiff that it was to receive a rebate on all grain sold by a contract made in 1880 and that for the last six years the defendant company has not lived up to the terms of the contract.

The attorney-general of Nebraska has begun quo warranto proceedings at Lincoln against the Argo Starch Company at Nebraska City. He alleges that the United Starch Company is a trust, operating in restraint of trade, and should be prohibited from doing business in Nebraska. The Argo Company is a Nebraska corporation, which was some months ago transferred to the United. This transfer, the attorney-general says, was illegal.

The American Spirits Manufacturing Company began suit on September 15, at Peoria, Ill., against Edward S. Easton and the Easton Company to recover \$25,000. The plaintiff alleges that while Mr. Easton was a director of the company, from 1895 to 1897, he received \$400 a month salary and agreed to purchase the grain for the company without profit to himself or his grain firm. However, he is now accused by this bill of charging a profit for an unknown amount, and the Spirits Company asks damages.

The Kansas Inspection Department is beginning to pay again, having earned net profits of \$2,770.83 in August. They were applied on a \$5,000 deficit from dull months.

Fires - Casualties

A tornado, which swept over Neodesha, Kan., September 23, tore off part of the roof of the Brinson-Judd elevator.

William Ayers' hay and feed store at Ravenswood, N. Y., was destroyed by fire September 12. Loss about \$3,000.

S. N. Hyde's elevator at Bryant, S. D., was struck by lightning September 8 and a large hole was torn in the roof.

Whittaker & Jennings' elevator at Francesville, Ind., was destroyed by fire September 18, with 2,500 bushels of oats.

The gasoline engine in the elevator at Evanston, Iowa, exploded September 25, without damage to building or occupants.

George Wakeman's new elevator at Chatsworth, Ia., collapsed recently, the pit falling in. The damage was readily repaired.

An ignition tube in a gasoline engine at Kanahwa, Ia., blew out recently and painfully injured Thomas Pindergast's eyes.

H. Thompson's grain store at Oaklake, Man., was burned September 8 in a general fire which consumed the business portion of the town.

Water in the elevator shaft at St. John Brothers' elevator, Bigelow, Minn., owing to recent heavy rains, interfered with the working of the house.

Sampson & Paine's elevator at Algona, Ia., was burned to the ground September 25, and is a total loss. It was valued at \$2,500; insurance, \$1,500.

Manager Evarts, of the Farmers' Elevator at Mantorville, Minn., lost the nail from one of his fingers by getting it caught in the elevator gearing.

The grain elevator at Gordonsville, Minn., was struck by lightning recently and set on fire, but the fire was extinguished before doing much damage.

G. W. Fisher caught his hand in a belt in the machinery of his elevator at Spencer, Wis. It was drawn around a pulley, injuring him painfully.

Among the firms reported damaged by storm in Galveston were Jockusch, Davidson & Co., grain dealers, and W. A. Gardner & Co., commission grain.

W. H. Council's elevator at Williamsville, Ill., was burned down September 25. The fire originated in the depot adjoining. Loss, \$12,000; partially insured.

The St. Anthony & Dakota Elevator Company's elevator at Auburn, N. D., was struck by lightning September 5. The roof was damaged, but did not catch fire.

Jerry Delaney's elevator at Harvard, Neb., collapsed October 7 under the strain of 6,000 bushels of wheat. There was considerable damage by reason of scattered grain.

Adjusters have fixed the actual loss by fire to the Dakota Elevator at Buffalo, N. Y., which burned August 13, at \$78,000, the salvage being \$12,000. The insurance was \$90,000.

Jacob Winterscheidt's elevator at Germantown, Kan., burned down September 13, together with about 400 bushels of grain. Cause unknown. Both elevator and grain were fully insured.

Fire broke out in the basement of the grain store of Thomas J. McDonald, at Lowell, Mass., October 9, and destroyed flour valued at \$40,000, besides much grain and hay. The origin of the fire is not known.

Lightning struck the Duluth Elevator, at Willmar, Minn., September 22, and set fire to the building. It was a total loss. On building and grain the loss is estimated at \$10,000; insurance on building, \$3,500.

H. H. Neuenberg & Co.'s elevator at Olivia, Minn., was struck by lightning September 9. Three large holes were made in the cupola. A heavy rain was falling at the time and prevented the building from catching fire.

About 2,600 bushels of grain of the cargo of the St. Lawrence River barge Alice, bound from Ogdensburg to Montreal, were damaged by water when the barge struck a rock. Another St. Lawrence barge, the Frontenac, sprung a leak and damaged its cargo of wheat badly.

The elevator, mill and storerooms of the M. B. Helmer Milling Company, at Fond du Lac, Wis., were destroyed by fire early in the morning of September 28. The engine room and coal sheds were the only part of the plant saved. The origin of the fire is a mystery. It is supposed to have started in the mill from a spark from a locomotive.

The plant was valued at about \$50,000. The mill was new last spring. The insurance was \$21,500.

Dockery & Hansen's hay and grain warehouse at St. Helena, Cal., was destroyed by fire September 3. It was known as the "Old Foundry," and was a substantial two-story stone structure. The loss was about \$5,000.

The Summit Fuel and Feed Company's building at the corner of Broadway and Kentucky streets, Denver, Colo., was destroyed by fire October 4. The origin of the fire is not known. The loss is estimated at \$6,000, insured.

A fire which started in an unused elevator chute in the grain warehouse of R. A. Shepard & Co., at McComb, O., September 15, threatened for a time to destroy the building. It was extinguished by prompt work of the firemen.

The new elevator at Altamont, S. D., was burned to the ground September 18. The elevator and two flat houses on each side, belonging to the elevator, were a total loss, with no insurance. The property was owned by H. H. Guernsey, who suspects incendiarism.

The Triumph Grain Elevator, at Northfield, Minn., was destroyed by fire September 26 late in the evening. The building was owned by A. M. Palon of Dundas, Minn., and was valued at \$5,000; insurance, about \$2,500. About 1,000 bushels of grain were destroyed.

The old Everett, Aughenbaugh & Co. elevator in the Northwestern Railway yards at Waseca, Minn., was destroyed by fire September 9. The property was used by W. J. Armstrong as a storehouse for salt and eggs. It was a total loss. The origin of the fire is not known.

David Gregory's grain elevator at Hartford City, Ind., was destroyed by fire October 4. It contained 1,300 bushels of wheat, barley and clover seed and 4,000 pounds of wool. The fire is believed to have been of incendiary origin. There was \$4,000 insurance on building and contents.

Ferrin Bros' grain elevator and warehouse at Mt. Morris, N. Y., operated by W. D. Shults, was burned September 21, and is a total loss. It was a four-story building, valued at \$8,000. Loss on contents, \$500; no insurance. The origin of the fire is not known. The elevator will probably be rebuilt.

Fire destroyed the warehouses of the Goyer Company at Greenville, Miss., September 26. The contents consisted of grain, hay and other merchandise, and was a total loss. The fire is supposed to have caught from spark from a locomotive. Loss, \$25,000; insurance, \$9,500 on stock and \$2,500 on building.

Tomkies & Co.'s corn and rice mills and elevator at Railroad and Tenth streets, Houston, Texas, were entirely destroyed by fire September 27. The corn plant had a capacity of 500 barrels per day and the rice mill 200 barrels. The origin of the fire is not known. The loss was \$15,000; insurance, \$7,000. The plant will doubtless be rebuilt.

The four-story elevator building of the Shreveport Mill and Elevator Company, at Shreveport, La., was burned September 13. The fire apparently started on the second floor, immediately over the engine room. The loss on building, machinery and stock of the elevator is estimated at \$25,000. Insurance, \$20,000. The company will rebuild.

The grain elevator of the Atlantic Export Company at Thirtieth and Oxford streets, Philadelphia, was completely destroyed by a fire of unknown origin early in the morning of October 9. It was a three-story wooden building and contained valuable machinery, all of which was destroyed. The loss is \$20,000, partly insured. The elevator will be rebuilt.

Fire broke out in the feed store of M. W. Simonson & Co., 118 Frelinghuysen Avenue, Newark, N. J., September 12, and destroyed the contents. It is thought that the heat generated in a pile of grain in the cellar started the fire. The building was a two-story brick and was entirely gutted by the fire, only the walls standing. The loss is estimated at \$15,000; insured.

Fire broke out in the hold of the steamship American, while lying at the dock in New Orleans, and damaged the cargo of wheat and cotton to the amount of \$40,000. The vessel is built of iron and arranged in water-tight compartments. There were 104,000 bushels of wheat on board. Much of this was damaged by the water, which was poured into the hold to extinguish the fire. The cause of the fire is a mystery.

The grain and hay warehouse of Joseph Falloon, and the adjoining storehouse of Adam Diehl & Sons, at Pittsburg, Pa., were destroyed by fire September 8. A small blaze started from some cause unknown on the floor inside the Falloon warehouse and was soon beyond control. The building contained a large quantity of hay and grain, which was a total loss. The Diehl store also contained hay and grain. The loss to Joseph

Falloon was about \$10,000; partly insured. Adam Diehl & Son's loss was \$9,000, with some insurance.

The Chamber of Commerce Building at Minneapolis was damaged by fire to the extent of \$1,000 September 23. Electric wires are said to be responsible for the blaze, which originated in the basement a little before noon. The building was saved from destruction by hard work of the fire department and by the fact that the first floor is deadened by a layer of cement, which prevented the fire from eating through.

The Grangers' Warehouse at Danville, Cal., was burned down by a fire which started at 8 o'clock in the morning at one end of the building, while workmen were loading hay at the other end. The fire destroyed 2,700 tons of hay, worth about \$20,000. Two cars on the track ready to ship were also burned. The warehouse was owned by the Grangers' Bank and was built on the site of the warehouse which was destroyed by fire seven years ago. It was 300 feet long. The contents were partly insured.

The Brooklyn Warehouse Company's elevator, at 215 Bowne Street, Atlantic Dock, Brooklyn, was destroyed by fire September 22. Two fireboats assisted the fire company, but were unable to subdue the blaze. The adjoining four-story stone warehouse of Nash, Whiton & Co. took fire and was partially destroyed, as was also the big warehouse of the Lyman Grain Drying Co. The fire started in one of the upper stories of the elevator. It was fanned by a brisk wind and spread rapidly. The firemen were unable to get into the interior of the building, as the entrances on the water front were too high and those on the land side led downward into the grain bins. They were compelled to wait until the roof burned off before getting water into the building. The loss on buildings was estimated at \$75,000; on stock, \$30,000, and on machinery, \$10,000. The total insurance was about \$100,000. Some 45,000 bushels of oats and 4,000 bushels of wheat were destroyed.

INSPECTION OF CORN AND OATS.

The following inspection rules for corn and oats have been adopted by the Toledo Board of Trade Association:

CORN.

No. 2 yellow corn to be at least $\frac{3}{4}$ yellow; to be sound, dry and clean. Can be very slightly mixed with unsound kernels.

No. 3 yellow corn shall be at least 75 per cent yellow; may be slightly damp, and must be reasonably clean and reasonably sound.

No. 4 yellow corn shall be not less than 75 per cent yellow, to include all merchantable corn not good enough for No. 3 yellow.

No. 2 white corn to be white; to be dry, sound, clean, and to contain not more than 2 per cent of colored corn. Can be very slightly mixed with unsound kernels.

No. 3 white corn to be white, reasonably sound, reasonably dry and clean, and to contain not more than 4 per cent colored corn.

No. 4 white corn to include all merchantable corn not good enough for No. 3 white, but must not contain over 4 per cent colored corn.

No. 2 corn to be mixed corn, dry, clean and can be very slightly mixed with unsound kernels.

No. 3 corn to be mixed, reasonably clean, reasonably sound and may be slightly damp.

No. 4 corn to include all merchantable mixed corn not good enough for No. 3 corn.

OATS.

No. 2 white oats to be white oats, dry, sound and sweet and clean. Shall not contain over 2 per cent of mixed oats and to weigh not less than 30 pounds.

No. 3 white oats shall be white oats, reasonably dry and sweet; reasonably sound and reasonably clean. They shall weigh not less than 28 pounds and shall not contain over 5 per cent of mixed oats. May be slightly stained.

No. 4 white oats shall be white oats; may be stained or discolored, but must be sweet and shall weigh not less than 26 pounds and contain not over 8 per cent of mixed oats.

Rejected white oats to be white; may be heated or musty, and shall include all merchantable oats not good enough for No. 4 white.

No. 2 oats to be mixed oats, dry, sound, clean and to weigh not less than 28 pounds.

No. 3 oats to be mixed oats, reasonably dry, sweet, reasonably sound and reasonably clean and to weigh not less than 26 pounds.

Rejected oats may be heated or musty, and shall include all merchantable oats not good enough for No. 3.

Some time previous to the recent elevator fires in Buffalo, the local insurance board dispensed with the services of an inspector, whose duty it was to make a special investigation of elevators. The board has changed its mind, and the inspector is now back in his old position.

OBITUARY

Lawrence E. Holdridge, of the commission grain firm of Holdridge & Logan, Kansas City, Mo., is dead.

William Lloyd, who had had charge of the grain elevator at Alger, O., was found dead in his bed recently, having died from heart disease.

Phydello H. Bump, a leading grain dealer of Janesville, Wis., died at a hospital in that city September 30, as the result of a surgical operation. He was 40 years old and leaves a wife and four children.

Dr. Thomas L. James died at Waterloo, Ill., October 2, aged 31 years. He was a son of the late Austin James, prominent in Southern Illinois and well known to grain merchants in St. Louis, Chicago and elsewhere.

Richard Bath died at his home in Brooklyn, N. Y., October 1, of apoplexy, aged 74 years. He was a native of Brooklyn and for many years had been in the hay and grain business, latterly as head of the firm of Bath & Hayward. He leaves a son and a daughter.

Charles J. Mann died at his home in Buffalo, N. Y., September 12, aged 83 years. Deceased was born in England, but was brought to Buffalo as an infant 81 years ago and had lived there ever since. For many years he was prominent in the grain business at Buffalo.

S. Le Grand Abbey, a well-known feed dealer, of Kingston, N. Y., died in Unadilla, N. Y., September 17. He had been in poor health for some time and had become despondent. He was found dead in his bed about 9 o'clock in the morning, having shot himself in the head with his revolver. He leaves a wife and one son.

Frank M. Briggs died of typhoid fever at his home near Beardstown, Ill., September 19. Deceased was 68 years old. For a number of years he was engaged in the grain business at Briggs' Landing on the Illinois River, near Beardstown, but later he retired to a farm. He is survived by three daughters and two sons.

George E. Townley, a grain merchant of Indianapolis, Ind., died suddenly from apoplexy at his residence in that city September 17. Deceased was a member of the grain firm of Fred P. Rush & Co., of Indianapolis, and had been a partner of Mr. Rush for twenty-five years. He was fifty-nine years old. His sudden death was a great shock to his family and business associates. He leaves a wife, one son and one daughter.

T. E. Ryan died recently at Savannah, Ga. Prior to the war he was in the grain business at Savannah and Charleston and accumulated a fortune. After the war he continued in the grain business for a time and then removed to New York, where he engaged in the cotton business and was very successful. Later, he lost his fortune, and for several years has lived quietly at Savannah. He leaves a widow and two sons.

Timothy Sammons, general manager of the Rock Island Elevator, Chicago, died September 18, at St. Elizabeth Hospital. Mr. Sammons was born in the old Lake House, at Kinzie and Rush streets, Chicago, in 1842. In 1869 he became connected with the elevator firm of Munn & Scott, and later was superintendent for Flint, Odell & Co. He commenced as weighman and rose to the position of general manager. His death was due to Bright's disease, following a complication of diseases. He leaves a widow and nine children, three sons and six daughters.

Edward Cottrell died in New York City, September 28. His body was found in Central Park, where, it is thought, he committed suicide. He was 58 years of age, and twenty-five years ago was one of the heaviest grain operators in this country. Of late his fortune changed and he became financially embarrassed and despondent. An empty vial, which had contained carbolic acid, was found beside him. He was a brother of T. D. Cottrell of the Chicago Board of Trade, who made an unsuccessful attempt to commit suicide some months ago.

Caleb McCune, of the firm of J. & C. McCune, dealers in flour and grain at Pittsburg, Pa., died September 27 from injuries received in a fall from a street car four days previous. He was unconscious most of the time from concussion of the brain. Deceased was born in Elizabeth, Pa., in 1846. He started in the grain business first in his native town and afterward moved to Pittsburg, where the firm of J. & C. McCune was formed. For seventeen years this firm has enjoyed a prosperous business in Pittsburg. Mr. McCune leaves a

wife and two sons, the latter forming the firm of McCune Brothers, dealers in grain, feed, etc., in Pittsburg.

Bert Sawyer, son of the late A. J. Sawyer of Minneapolis, died September 8 at the insane asylum at St. Peter, Minn. The elder Sawyer was considered one of the wealthiest grain operators in the Northwest. On his death, which occurred a few years ago, his fortune was inherited by his son, B. J. Sawyer, familiarly known as "Bert." The young man soon lost the money through careless methods of business, and financial worry and other causes drove him insane.

William C. Lyon died at his residence in Chicago September 24, aged 48 years. He had been suffering from heart disease for two years and had been confined to the house for several weeks. Deceased was the eldest son of John B. Lyon, who was noted for his corn deals in the early days of the Chicago Board of Trade. W. C. Lyon grew up in the business with his father and was well known and popular on the Board. Some years ago he sold his membership and became interested in outside business ventures, including a railroad in Southern Indiana. He was a bachelor.

Daniel D. Mangam, senior member of the firm of D. D. Mangam & Son, grain merchants, of New York City, died at his home in Sing Sing, N. Y., September 26, aged 72 years. The cause of his death was apoplexy, from which he had suffered for four years. In early life Mr. Mangam secured an interest in the mills of his cousin, William D. Mangam, who was the founder of one of the oldest produce and grain commission houses in New York. William D. Mangam died in 1866 and Daniel D. Mangam succeeded to the entire business, which he carried on at the old stand. He leaves a wife and five children.

F. N. Quale died at his home in Toledo, O., September 15. His death was the result of a paralytic stroke sustained about three months ago. Mr. Quale was born in Linden, N. Y., in 1847. In early life he engaged in milling in New York State, and 21 years ago he removed from New York to Ohio and engaged in the milling business at Fremont. He afterward removed to Toledo and operated a flour mill in that city. He then purchased the Armada Mills. Later he bought the Walbridge Mills in Toledo. When these mills were burned out four years ago he built an extensive brick elevator and warehouse. He also had large elevator interests in country towns, and many other investments. He was president of the Toledo Grain and Milling Company. Mr. Quale is survived by his wife, one son and three daughters.

Elmer E. Davis, aged 36 years, owner of the West Side Elevator at Lake City, Ill., was run over by a loaded car and instantly killed, September 18. The car had been loaded with corn at the elevator and was started down grade to cross the road, so that another car could be loaded. In crossing the wagon road the car gained considerable headway, and one of Mr. Davis' assistants climbed the top to set the brakes. Mr. Davis ran on ahead and climbed to the top of an empty car, presumably for the purpose of setting the brake and stopping the oncoming car. He had just reached the top of the empty when the crash came and he was thrown backward head first to the ground. Before his body could be extricated from under the wheels the grain car had passed over it, severing his head and one arm. It is thought that he was killed by the fall, as his skull was broken. He leaves a wife and a small child.

INSPECTION OF OATS.

The following is the rule governing the inspection of oats at Chicago:

RULE IV.—OATS.

No. 1 White Oats shall be white, sound, clean, and reasonably free from other grain.

No. 2 White Oats shall be seven-eighths white, sweet, reasonably clean, and reasonably free from other grain.

No. 3 White Oats shall be seven-eighths white, but not sufficiently sound and clean for No. 2.

No. 4 White Oats shall be seven-eighths white, damp, badly damaged, musty, or for any other cause unfit for No. 3.

No. 1 White Clipped Oats shall be white, sound, clean, reasonably free from other grain, and shall weigh not less than thirty-six pounds to the measured bushel.

No. 2 White Clipped Oats shall be seven-eighths white, sweet, reasonably clean, reasonably free from other grain, and shall weigh not less than thirty-four pounds to the measured bushel.

No. 3 White Clipped Oats shall be seven-eighths white, not sufficiently sound or clean for No. 2, and shall weigh not less than twenty-eight pounds to the measured bushel.

No. 1 Oats shall be mixed oats, sound, clean, and reasonably free from other grain.

No. 2 Oats shall be sweet, reasonably clean, and reasonably free from other grain.

No. 3 Oats shall be mixed oats, not sufficiently sound and clean for No. 2.

No. 4 Oats shall be all mixed oats that are damp, badly damaged, musty, or for any other cause unfit for No. 3.

The EXCHANGES

B. B. Minor has been elected chairman of the grain committee of the Indianapolis Board of Trade, to take the place of Geo. E. Townley, deceased.

Work has been commenced on the site of the new Chamber of Commerce at Minneapolis, but only the basement of the structure will be completed this fall.

The first week of this month was carnival week in Kansas City. The Board of Trade was busy all the week entertaining visitors. On Thursday no session was held.

On October 9 the Merchants' Exchange of St. Louis invited Gov. Roosevelt to visit the exchange. He accepted and was given an enthusiastic reception and made a short address.

On Friday, September 28, the Pittsburg Grain and Flour Exchange appointed a committee to draft a memorial on the death of Caleb McCune. The Exchange then adjourned until Monday as a mark of respect.

The Galena Elevator has been made a "regular" house by action of the directors of the Chicago Board of Trade. It has a capacity of 700,000 bushels, is located on the C. & N. W. tracks near the State Street bridge and is operated by the Chicago Terminal Railway Elevator Co.

Business on the floor of the Milwaukee Chamber of Commerce has greatly improved since the new crop began to move, and the cash business has increased daily. Barley receipts have been liberal, and the highest price of the year has been touched this month. Memberships have advanced to \$100, and a number of applications have been received.

Roy Bullen has been expelled from membership in the Chicago Board of Trade. Mr. Bullen had for a time made his headquarters in the office of the Nash-Wright Co. and made joint trades with them. He preferred charges of unmercantile conduct against William Nash, who after investigation was exonerated. Mr. Nash then turned the tables on Mr. Bullen and he was found guilty of overcharging customers on some of the same trades on which he had based his charges against Mr. Nash.

At the annual election of the Minneapolis Chamber of Commerce Mr. John Washburn, a member of the Washburn-Crosby Co., of that city, was elected president. The other officers elected are as follows: E. S. Woodworth, first vice-president; F. W. Commons, second vice-president; H. L. Little, G. F. Piper, C. C. Wyman, B. H. Morgan and P. B. Smith, directors. Board of arbitration, J. D. McMillan and W. T. Hooker. Board of appeals, H. W. Commons and J. R. Martin. Business on the exchange is heavy, especially in futures, and memberships are now selling around \$700.

The Winnipeg Grain Exchange has amended its trade rule No. 12, In Store, to read as follows: "The term 'in store' to mean that grain is free of all charges to the buyer, but the charges for outward inspection and outward weighing must be borne by the buyer. The seller to give the buyer not less than five clear days free of storage from date of delivery of documents." A committee was appointed to interview the C. P. R. authorities and endeavor to get them to make Winnipeg an "order" point, so grain could be consigned here, and, after inspection, sold on sample. Notice was given that at the next meeting a motion would be made for the appointment of a committee to wait on the C. P. R. to ascertain whether anything can be done in the way of having one of their elevators at Fort William declared "Not a public elevator," to allow of the trade doing business in the shipping of grain under similar conditions to those in effect at American lake ports.

The annual crop of corn yarns has begun to come in. It is not quite up to grade, owing to overworking the soil last season. The Indiana man has the button for originality so far. He says: "A great many people have been injured while cutting the corn by the ears getting knocked loose and falling on their heads. A sort of cushion was made to be worn in the hat, which doubtless saved a good many from injury. It is safe to say that the farmers generally are some dollars 'to the good' over any of the last few years, regardless of the loss of wheat crop."

PERSONAL

J. F. Hemsley is running the Stead Elevator at Walhalla, N. D.

Nels Swanson of Hoople, N. D., is now wheat buyer at Milton, N. D.

E. E. Johnson is in charge of Devereaux & Co.'s elevator at Esterville, Ia.

James Meehan of Claremont, Minn., is now grain buyer at New Richland, Minn.

Merrill Balch is now with McNaughton Brothers at their elevator in Ray, Mich.

Allen Elliott has taken charge of the Dakota Elevator at Cooperstown, N. D.

Arthur Curtis is buyer for the James Quirk Milling Company at Echo, S. D.

Paul Kniss is now with E. A. Brown in the grain business at Luverne, Minn.

Frank Hall is grain buyer for the Van Dusen Elevator Company at Groton, S. D.

J. H. Wilson of Cooperstown, N. D., is now in charge of an elevator at Lewiston, Idaho.

Charles Brady is the new elevator agent for the Duluth Elevator Company at Ojata, N. D.

Bennett Taylor informs us that he has removed from Kirkpatrick, Ind., to South Raub, Ind.

Eric Gartlund of Harvey, N. D., is buying grain for the Royal Elevator Company at Manfred, N. D.

Ben Lloyd of White Lake, S. D., is the new buyer for the Spencer Grain Company at Mitchell, S. D.

A. M. Monson succeeds E. M. Wallbridge as buyer for the James Quirk Milling Company at Belview, Minn.

Robert Bines, a director of the Chicago Board of Trade, has returned from a three months' trip to Europe.

Charles Johnson, formerly in charge of an elevator at Sargeant, Minn., has removed to Minneapolis.

Will Bratton has removed from Denton, Tex., to Krum, Tex., where he has charge of the Cameron Elevator.

A. C. Cochran, formerly of Woonsocket, S. D., is now in charge of the Loomis Elevator at Wagner, S. D.

M. Blewett, formerly of Detroit, Minn., has taken charge of the Independent Elevator at Dresden, N. D.

Andrew Weis writes from Buffalo Center, Ia., where he is now located. He was formerly at Albany, Minn.

J. H. Sistermans of Belle Plaine, Minn., has removed to Ellsworth, Minn., where he is running an elevator.

J. I. Sabraw of Ojata, N. D., is now at Merrifield, N. D., where he is representing the Duluth Elevator Company.

J. O'Mahoney, manager of the Northwestern Elevator at De Graff, Minn., was married recently to Miss Emma Byrne.

E. Effinger of Belgrade, Minn., is the new buyer at the Osburne-McMillan Elevator Company's elevator at Lanona, N. D.

Thomas S. Norton has sold his membership on the Chicago Board of Trade and has gone into manufacturing business.

R. O. Sperry has removed from Langford, S. D., to Rock Rapids, Ia., where he is buying grain for the Peavey Elevator Company.

Fred Sugden, formerly of Bird Island, Minn., is now in charge of the Exchange Grain Company's elevator at Buffalo Lake, Minn.

Claude McAllister of Missoula, Mont., is in Kalispell, Mont., where he is in charge of the elevator of the Blackfoot Milling Company.

E. L. Welch, ex-mayor of Henderson, Minn., has recently been appointed general manager of the Pacific Elevator Company at Minneapolis.

Frank Miner of Courtland, Minn., is in charge of the new elevator at Hendricks, Minn. L. J. Stewart succeeds Mr. Miner at Courtland.

George H. Hunt, who has been a broker on the Chicago Board of Trade for years, is now connected with the Equitable Life Insurance Company.

A. F. Weinberger, the veteran hay commission man of the Chicago Board of Trade, is on 'Change again after a visit to his old home in Germany.

J. F. Geeslin, grain buyer for the Farmers' Elevator at James, S. D., is reported missing since September 22, when he left ostensibly for Aber-

deen. It is said that he had in his satchel \$2,700 belonging to the elevator company.

James A. Martin, formerly buyer for the Omaha Elevator Company at Gothenburg, Neb., is now in charge of that company's elevator at Cozad, Neb.

F. W. Emerson of Birchmel, Ia., grain buyer for the St. Paul & Kansas City Grain Company, has overhauled the company's elevator at Greenville, Iowa.

John Hanscom, who is associated with J. H. Leavitt & Son, grain dealers, at Gorham, Me., married Miss Flossie E. Fogg of Scarborough, Me., September 20.

L. W. Lewis has resigned his position as buyer for the Spencer Grain Company and has accepted a position with the Monmouth Merchant Mills, Mitchell, S. D.

Joseph E. Lemaire will be associated with his brother in the grain and hay business at Brittan, Mass. They are erecting a new elevator and putting in a sidetrack.

John Stout, who has been living in Southwestern Minnesota for several years past, has returned to his old home at Stout, Ia., and will run the elevator at that place.

D. K. Whelan, who has been buying wheat at Gaylord, Minn., for the Interstate Elevator Company, is now representing the Pacific Elevator Company at Wilson, S. D.

Matt Jost, an elevator agent at Mantador, N. D., recently lost \$500, which was stolen by boys from his valise. The guilty parties were located and \$400 of the money was recovered.

Charles Haunch has resigned his position as buyer for the Osburne & McMillan Elevator Company, at Lanona, N. D., and has accepted another position in the northern part of the state.

O. F. Simons, who has been connected with the National Elevator Company at Lakota, N. D., has been transferred to Bartlett, N. D., where he has charge of the company's 40,000-bushel house.

J. H. Stickney will take charge of the new grain elevator at London, Ia., as soon as trains are running on the Albert Lea & Southern Railway. He will be the first man to locate in the new town.

Charles H. Grinnell, chief deputy grain inspector at Tacoma, Wash., has tendered his resignation, and with George P. Wright, state grain commissioner, has purchased an interest in the new wholesale grocery house of Love, Johnson & Co. in Tacoma.

W. R. Caswell, an elevator manager of Redwood Falls, Minn., disappeared recently, but returned to his home in an exhausted condition. He was evidently suffering from mental derangement, caused by a recent accident in which a heavy box of machinery fell on his head.

B. W. Snow is en route to Buenos Ayres on a special mission to investigate the agricultural condition and resources of the Argentine Republic for the Orange Judd Farmer. He will spend several months in that country studying the conditions of wheat and corn growing. The wheat harvest of Argentina will be ready in ninety days.

James F. Peavey, vice-president and general manager of the Peavey Grain Company, has resigned and removed to New York. He is succeeded as general manager by James Pettit, formerly secretary and treasurer. Denman F. Johnson, former secretary of the Duluth Elevator Company of Minneapolis, succeeds Mr. Pettit as secretary. H. T. Heffelfinger of Minneapolis has been elected vice-president and will make his headquarters at Minneapolis.

OUR CALLERS

We have received calls from the following gentlemen promptly connected with the grain and elevator interests, during the month:

Jno. Janett, Peabody, Kan.
F. K. Lewis, Sauk Center, Minn.
C. Prinz, of Prinz & Rau Mfg. Co., Milwaukee, Wis.
Louis Barbeau, president the S. Howes Co., Silver Creek, N. Y.
Thomas H. Metcalfe, of Metcalfe & Son, Portage la Prairie, Manitoba.
A. F. Shuler, Minneapolis, Minn., representing Huntley Mfg. Co., Silver Creek, N. Y.

Among the various bouquets thrown at Kansas, metaphorically speaking, during these last two years of big crops, is the discovery that Kaffir corn, the corn of the desert, is valuable for making whisky. Distillers at both Lexington, Ky., and Peoria, have obtained a fine quality of highwine from Kaffir corn with only slight changes in distillery machinery. The possibilities of Kansas are indeed illimitable.

Items from Abroad

Among other buildings, Botsch's grain warehouse at Hamburg was burned on September 28.

English wheat of 1900 is not up to its usual standard of quality and is much below the quality of 1899 crop.

The duty free importation of bags for cereals, and material for making bags, has been extended by the Argentine government until February 1 next. It is estimated that the extension will affect revenue to the amount of over \$300,000 gold.

The new German duties on wheat and rye, as agreed upon by the tariff commission, will be 80 and 65 marks respectively per metric ton; that is a little over 51 cents per bushels on wheat and a little less than 31 cents per bushel on rye.

A foreign contemporary states that the so-called mummy wheat, which on being sown germinates, is now known to have been fraudulently represented as taken from the ancient tombs by the Arabs who supplied it. M. Edmond Gain, the French botanist, has again investigated the subject, and a microscopic examination of sundry samples, some of which were 6,000 years old, proved that though the albumen and starch were little modified, the germ itself was to a great extent decomposed, and severed from the albuminous cells, therefore germination was impossible.

Apropos the "decline of British farming" a contributor to London Echo offers a solution, which is not less than a proposal to make the landlords guarantee to the farmers the average price of 40s. per qr. (\$1.25 per bu.) for their wheat. He argues that the landlords are the individuals who benefit most by the advance in the price of the cereal, and, therefore, they are the most likely people to pay the bounty which it has been suggested should be paid by the government, whose present aim appears to be to procure all breadstuffs as cheaply as possible to feed the workers. He argues that not one-fourth of the people of the country have any direct interest in the soil, and, therefore, it would not be fair to make three-fourths pay for the benefit of the other fourth.

The port of Bahia Blanca, on the extreme south-east coast of the Argentine Republic, is being materially improved. This port is the outlet of the southern wheat fields of the Argentine, which during the past ten years have become quite considerable, and which are annually increasing in area. The port shipped 2,000 tons of wheat in 1891, and the exports have increased at pretty regular stages (barring 1897) since. In 1899 the wheat exports were 180,000 tons, 6,600,000 bushels, and for 1900 to July 27 151,500 tons, 5,555,000 bushels, were exported. Bahia Blanca cannot be compared with Rosario as a wheat exporting port, as it has not the facilities, nor the accommodation, nor does it serve so large a zone as Rosario does, but notwithstanding this it is quite as important a port in the south for the export of produce as Rosario is in the north. Up to date this season Rosario has exported 800,000 tons of wheat.

European complaints of wheat adulteration by Russian exporters have not by any means effected a cure for the trouble. Complaints by the buyer have little effect at such long range on foreign shippers who make money by sophisticating grain. Realizing, however, that habitual adulteration must have a bad influence on trade, which is always facilitated by mutual confidence in the traders' integrity, the grain trade at Nicolaieff have made an agreement to hereafter transact their business, both domestic and foreign, by the following rules, relative to "average clean." (1) In transactions in all kinds of grain products the normal mixture of foreign bodies to be 3 per cent. (2) When the mixture is from 3 per cent to 5 per cent, a reduction in the price proportionate to the value of the grain is to be made for the per cent in excess. (3) When the mixture is from 5 per cent to 8 per cent the reduction in the price for the extra percentage is calculated upon double the value of the grain. When the mixture exceeds 8 per cent the buyer has the right to refuse to accept the grain. (4) For export the maximum of the mixture of foreign bodies is to be 6 per cent. (5) If the controller appointed by the bourse committee finds that the grain contains more than 6 per cent after shipment, then the bourse committee must telegraph to the bourse committee at the port of destination, stating the shipper, steamer and per cent of admixture. (6) Differences between buyers, sellers and shippers at Nicolaieff are to be settled by the Nicolaieff bourse committee, which will also determine the per cent of foreign bodies in grain in their special department set apart for this purpose at the Exchange. The expenses of this department are to be defrayed by a special tax of sufficient amount to cover the actual expenses.

A good many feeders are going into Nebraska for fattening.

FLAXSEED

The Imperial Elevator Company is building a large flat house at Granville, N. D., to receive the flax crop.

Eastern capitalists have been in consultation with residents of Lakota, N. D., with a view to erecting a mill. A free site will be given.

A flax mill is to be built at Oakland, Cal. The Merchants' Exchange of that city has raised about \$1,600 for public improvements at the site of the proposed mill.

Citizens of Stacyville, Ia., are negotiating with an eastern firm, which is now operating a flax tow mill at Austin, Minn., to establish a similar mill in their town.

Ramsey County, N. D., is regarded as the best flax territory in that state this year. There are about 50,000 acres in flax in that county, and a high estimate is 16 bushels per acre.

The Midland Oil Company has been incorporated at Minneapolis, Minn., with capital stock of \$400,000, to operate the new Warner linseed-oil mill at that place. The mill is an independent plant, outside of the American Linseed Company.

On September 18 the sample buyers on the Duluth Board of Trade refused to allow rejected sales to be applied on sales of flax to arrive in September, claiming that it would be impossible to get in enough No. 1 seed in September to fill sales if they allowed the rejected to be applied.

North Dakota flax is said to have been damaged considerably by frosts. Authorities differ as to the extent of the injury, but it is variously estimated at from 50 to 60 per cent of the crop. It is regarded as certain that very little No. 1 North western flax will come out of North Dakota.

Speculative sales of flaxseed in the Minneapolis market are said to have been very limited of late, owing to the fact that all flaxseed in sight is immediately bought by local oil producers. There is talk of \$2 flax in the near future, based on the heavy demand as compared with the supply.

The first killing frost of the season occurred in North Dakota on the morning of September 16. Late sown flax in the states south of North Dakota is considered safe, however, and it is also thought that early sown flax in North Dakota was not affected. But possibly 2,000,000 to 3,000,000 bushels of flax may have been damaged.

The Paint, Oil and Drug Reporter estimates the South Dakota flax acreage at 450,000 acres. The yield will average 8 to 9 bushels per acre. The estimated flax acreage of North Dakota, taken from figures founded on the latest assessors' returns, is 1,450,000 acres. The yield in North Dakota may be as high as 8 bushels to the acre.

The acreage of flax in the United States this year is 916,000 acres greater than last year, an increase of more than 50 per cent. Of this increase 712,000 acres are in North Dakota alone. Even with the rate of yield, the smallest in five years, the total crop is 15 per cent above the highest previous record, or 23,412,900 bushels, as compared with 20,086,000 bushels in 1899.

Flax in the Minneapolis market has been steadily rising in price and has sold of late as high as \$1.65 a bushel. It is said that previous to last year there is no record of flax ever having sold above \$1 a bushel. The present high price seems to be due to the uncertainty of the crop, compared with other years, together with the early frosts, which have brought large quantities of rejected flax on the market. When a surplus of this poorer grade is sold, the price of the better classes is generally advanced.

FLAXSEED INSPECTION AT CHICAGO.

The following annual report of S. H. Stevens, inspector and registrar of flaxseed for the Chicago Board of Trade, though dated September 1 appeared too late for publication in the "American Elevator and Grain Trade" for September:

To the President and Directors of the Board of Trade of the City of Chicago:—It is one year since your honorable body made such amendments to the regulations governing the inspection of flaxseed as progress demanded. The proof of their up-to-date wisdom is shown in that no suggestion of weakness or desired change has reached this office from any source. In further confirmation of their excellence, the Flaxseed Inspection Committee, although in close touch with the department, has not been officially called for the correction of error during the year.

The regulations provide in clear, positive terms for the inspection, registration, storage, sale and shipment of the flaxseed of commerce. That section of the law which declares that all contract seed shall be commercially pure may be considered the cornerstone of the system; that allotting to each grade its proper percentage of unsound seed takes

its true position as the keystone, uniting and binding the several parts in a systematic whole. They eliminate all suggestion of chance in grading, where field or other damage is the dominating factor. The crown of this union of principles, essential to the proper inspection of flaxseed, is the assignment to each grade of the mean weight per measured bushel of clean seed.

"No. 1 Northwestern Flaxseed.—Flaxseed to grade No. 1 Northwestern shall be mature, sound, dry and sweet. It shall be northern grown or have the usual characteristics thereof. The maximum quantity of field, stack, storage or other damaged seed intermixed shall not exceed twelve and one-half per cent. The minimum weight shall be fifty-one (51) pounds to the measured bushel."

The definition of the No. 1 northwestern grade was framed to cover, as near as may be, the characteristics of the best commercial flaxseed of the Northwest. It takes first position in the rules, and the seed so classed is preferred by the crushers.

"No. 1 Flaxseed.—No. 1 Flaxseed shall be sound, dry, and free from mustiness, and carrying not more than twenty-five per cent of immature or field, stack, storage, or other damaged flaxseed, and weighing not less than fifty (50) pounds to the measured bushel."

The No. 1 grade rules were drawn to provide (as a rule) for the best flaxseed marketed in the Southwest and all sweet Northwestern grown seed carrying damaged seed in excess of that allotted to the No. 1 Northwestern grade. Yet, in grading, where grown is in no wise considered. The No. 1 grade is compensated by being the contract grade of commerce and at times commanding the better prices.

When all question affecting the grade of a sample of flaxseed have been decided, except the per cent of unsound seed intermixed, the inspector weighs out an average half ounce, analyzes the same, and weighs the several parts. There is but a small chance for the entertainment of a doubt as to the proper grade of flaxseed in any phase of inspection.

Flaxseed intermixed with unsound seed in excess of twenty-five per cent or that is damp or musty grades rejected. Dampness is usually susceptible of identification by the sense of touch. If not sufficiently convincing, weigh up a half ounce, dry it, and reweigh. If in search of mustiness call to your aid the sense of smell; you need seek no further. If the seed is too wet to be called damp or too fetid to be called musty, it is positively of the "No Grade" grade.

Commercial grain and seed is comparatively, not absolutely, dry; yet, if sufficiently free from moisture as to be what is popularly known as dry, its keeping qualities are assured. Grain and seed in railway cars or warehouses, so conditioned, will not be affected by the atmosphere so as to cause a chemical change. As it is a condition precedent that seed or grain to grade contract must be dry, therefore it cannot become out of condition after inspection, if properly inspected and stored.

The uncertainty which attends the execution of the law defining a system of inspection founded on expert opinion must cause it to fail of its object. The work coming short of its goal is a prolific source of dishonesty and detriment to the trade. Relief from these evils can be had in the inspection of grain and seed by enacting mandatory laws to govern the same, and by the practical application of mechanical appliances in the inspection department. A system framed to combine the power of the law and of mechanism so as to operate the two jointly, the precision of the result would become proverbial. And more, that the fundamental truth that mechanism, no less than law, in this connection, dominates integrity to the management, from the field to the mill.

There should be a uniform system of National (not political) grain and seed inspection, based on the following axioms of practical wisdom:

First—The law defining the classification of grain and seed into grades should be mandatory in all its details.

Second—All commercial sales of grain and seeds should be made on basis of pure.

Third—There should be allotted to each grade its proper mean per cent of unsound grains.

Fourth—The definitions of the grades of grain and seed should state the maximum percentage of moisture permissible in each grade.

Fifth—To each grade of commercially pure grain or seed should be assigned its proper mean weight per measured bushel.

The plan of inspection above set forth is diametrically opposite to any method which rests on the uncertain foundation of legalized human opinion.

As the forward movement must be wrought out on the lines of thought and progress inaugurated and set in motion in the fifties by the Board of Trade of the City of Chicago, it is eminently proper that that organization should stand to the forefront in the advance of the grain and seed trade of the world. Therefore, the following resolution might be considered in order:

Resolved, By the Board of Trade of the City of Chicago, That we respectfully request our delegates, accredited to the National Board of Trade to present to that honorable body a system of grain and seed inspection, and ask their coöperation to

the end that its terms become national. Respectfully submitted.

S. H. STEVENS,

Inspector and Registrar of Flaxseed.

At a meeting of the Board of Directors of the Board, held on September 4, the above report was presented and the resolution embodied therein unanimously adopted.

The flax crop of Ireland is almost entirely grown in the province of Ulster. The crop this year covered 47,327 acres, of which 46,805 were in Ulster. This is an increase of 12,209 acres in that province over the year previous. The crop was injured by bad weather in August. It will be noticed that a single county in North Dakota (Ramsey) had a larger acreage in flax than all Ireland.

The Orange Judd Farmer gives the acreage, average yield per acre and production of flaxseed for five years, as follows:

	Acre.	Per acre.	Bushels.
1900	2,595,000	9.0	23,412,900
1899	1,679,000	12.0	20,086,000
1898	1,553,000	11.1	17,217,000
1897	1,130,000	9.6	10,891,000
1896	1,145,000	11.3	17,402,000

BARLEY AND MALT

The Manitowoc Malting Company has increased its authorized capital stock to \$150,000.

George M. Spangler, maltster, of Cleveland, Ohio, is reported as having discontinued business.

The Ontario barley crop is not up to the average this year. The grain is somewhat stained and does not weigh up to the standard.

The Prinz & Rau Mfg. Co. has put a new barley separator in the United States Brewing Co.'s elevator at Snow and Elliott Avenue, Chicago, Ill.

Charles Richmond, of Plainview, Minn., has accepted a position with the American Malting Company at Elgin, Minn., in charge of their elevator at that place.

The Wisconsin Malt and Grain Company has completed its new building at Appleton, Wis. The capacity of the malthouse is doubled, making it 1,000,000 bushels.

A correspondent writes from Stanhope, Iowa, that barley in that neighborhood has been damaged 25 per cent by wet weather, and that the damaged grain will be fit only for feed.

During the cereal year ending June 30, 1900, 35 ships cleared from San Francisco for Great Britain, wholly or partially laden with barley. They carried a total of 3,582,471 centals of barley, valued at \$3,571,177.

Wm. H. Prinz of Milwaukee has patented a malt drying apparatus which is a combination of a furnace with a mixing chamber, the latter so arranged above the furnace as to receive the hot air from the furnace and thoroughly mix the malt and air.

Frederick H. C. Mey of Buffalo, N. Y., has patented a malting and drying apparatus consisting of a perforated rotary drum having an internal discharge tube or conduit and an annular air chamber surrounding the drum and communicating at its inner side with the interior thereof.

Hon. C. F. Stork of Cascade County, Montana, says that his average yield of barley this year is 12 bushels per acre, as compared with his usual yield of thirty to sixty bushels. The cause of the short crop this year was lack of rain, not a drop having fallen from the time the grain sprouted until it was harvested.

Bernhard Fischer of Mannheim, Germany, has patented in this country an apparatus for floor and kiln drying malthouses, consisting of the combination of a trough and a pair of coiled spiral-heating pipes placed within and both rotated in opposite directions, so as to effect a continuous circulation of the material from end to end of the trough while drying.

The first full cargo of barley ever shipped from Puget Sound was exported by Kerr, Gifford & Co. from Tacoma, October 13. The grain weighed 3,500 tons and was valued at \$75,000. It was all Washington barley and its destination the United Kingdom. Several other barley and wheat laden ships left Tacoma about the same time. Barley received at Tacoma this season has been grading high.

The receipts of barley at Cincinnati during September, 1900, were 47,250 bushels and shipments 1,771 bushels, as compared with receipts of 29,639 bushels and shipments of 3,075 bushels during September, 1899. The receipts of malt at Cincinnati during September, 1900, were 72,334 bushels and shipments 49,617 bushels, as compared with receipts

of 45,933 bushels and shipments of 44,125 bushels in September, 1899.

IMPORTS AND EXPORTS OF BARLEY AND MALT.

BARLEY.		
Imports—	Bushels.	Value.
August, 1899	None.	None.
August, 1900	18	\$15
Eight mos. ending Aug., 1899.	21,345	9,749
Eight mos. ending Aug., 1900.	18,676	9,106

EXPORTS—		
August, 1899	2,811,461	1,377,663
August, 1900	1,538,235	687,006
Eight mos. ending Aug., 1899.	5,105,509	2,628,476
Eight mos. ending Aug., 1900.	9,659,163	4,492,098

BARLEY MALT.		
Imports—		
August, 1899	400	325
August, 1900	None.	None.
Eight mos. ending Aug., 1899.	2,721	2,304
Eight mos. ending Aug., 1900.	3,462	3,648

EXPORTS—		
August, 1899	45,287	31,030
August, 1900	33,949	25,302
Eight mos. ending Aug., 1899.	321,167	227,745
Eight mos. ending Aug., 1900.	208,657	153,470

TRANSPORTATION

The grain dealers of Kay County, Okla., are asking for lower railroad rates to Chicago.

The Duluth & New Orleans Railway will continue the work of tracklaying in Iowa this fall.

There is now regular train service on the new Terre Haute extension of the Southern Indiana Railroad.

The prevailing rate on wheat from Duluth to Buffalo by lake during September and October has been 2 cents.

Ohio-grown wheat is now being loaded at Cleveland for lake transportation to Buffalo. This is something unusual, as Ohio wheat ordinarily has gone to the seaboard by rail.

The Blackwell, Enid & Southwestern Railroad is now under construction from Blackwell to Enid, Okla., a distance of 50 miles, and will let additional grading contracts soon.

The Davenport, Rock Island & Northwestern Railroad, running from Clinton, Ia., to Davenport, and to Moline, Ill., is to be extended from East Moline to Peoria, via Galesburg.

A box car famine is impending on all the railroads in the country. It has been especially noticeable on the roads centering in New York City. The situation, unless relieved, is likely to become serious.

The Chicago, Rock Island & Pacific will open its new branch line between Gowrie and Sibley, Ia., about November 15. This new line is about 115 miles long. Several thriving towns are located on this line.

The Ann Arbor car ferry steamer No. 2 is now carrying grain on her trips from Manitowoc, Wis., to Frankfort, Mich. A bin with a capacity of 10,000 bushels has been constructed in the hold of the steamer, so that bulk grain and grain cars can be carried at the same time.

The St. Louis Steel Barge Company has recently launched a new steel-hull, light-draft towing steamer, with which it is expected that grain carrying on the Mississippi River will be resumed. It is claimed that grain can be carried from St. Louis to New Orleans at a profit of 3 cents a bushel.

Four steamers of the Northwestern Steamship Company will carry grain direct from lake ports to Liverpool next summer. On the inward trip they will lighten their cargo of all freight intended for New England points at Montreal, and on the outward trip will load only to the 14-foot depth and pass on direct to Liverpool.

Total grain receipts at Chicago during September, 1900, were 36,972 cars, a decrease from September, 1899, of 10 per cent. The capacity of the cars, however, was greater, and the actual receipts of grain showed but little decrease. From January 1 to September 30 the receipts were 208,074 cars, a falling off of 8.3 per cent from last year.

The edict of officials of the eastern railroads to raise rates October 3 was not made immediately effective, because of lake competition. At their meeting held in Chicago on the above date it was agreed to make a general advance in grain rates effective November 1, as follows: Export grain, Chicago to New York, advanced from 13½ cents to 16 cents per hundred pounds; export grain from the Mississippi river to New York from 15½ cents to 18½ cents; grain for domestic consumption, Chicago to New York, advanced from 15 to 17½ cents; from

Mississippi river to New York, from 17½ to 20½ cents.

Henry Baldwin, foreign freight agent of the Illinois Central Railroad, who visited Galveston after the storm, expresses the opinion that much of the grain that would have gone there but for the calamity will now go to New Orleans.

The Chicago, Burlington & Quincy Railroad is completing a new line between Alliance, Neb., and Brush, Colo., a station near Denver. The following new stations on the line have been opened: Alden, Sinta, Dalton, Marlowe, Sidney and Lorenzo, Neb., and Mercer, Winston, Padroni, Minton, Atwood, Merino, Balzac, Union, Cooper and Hill Rose, Colo.

It is reported that the Elder-Dempster Steamship Line has decided to withdraw its ships from Montreal and to call at Boston instead, the reason as given by Manager David Campbell in a recent speech to the members of the Montreal Corn Exchange being that more favorable terms can be secured from the port of Boston than from Montreal.

It is claimed that the old law in Minnesota governing freight rates has not been repealed and that consequently the new legislation is of no effect. A new schedule of freight rates prepared by the board of railroad and warehouse commissioners is in dispute on this account, as the old law prohibited rate reductions by the commissioners, unless complaints specifically stating wherein existing rates were unreasonably high were filed.

Charters for wheat from Pacific Coast ports for Europe have shown a sharp advance of late. The Cromartyshire was chartered at Portland for November at 52s. 6d. (\$12.60) per ton, which is \$4.20 higher than rates paid at the opening of the season. A ship was chartered at Tacoma at 47s. 6d.; at Portland, again, 51s. 3d. has been asked, and 50s. offered and refused.

George R. Blanchard, ex-vice-president of the Erie Railroad, and former commissioner of the Central and Joint Traffic associations, died at his residence in New York City, October 8. He was 59 years old. He began life as a clerk in the office of the Cincinnati & Chicago Railroad, in 1858, and rose through successive steps to high position. He was regarded as an authority on traffic matters.

President Mellen, of the Northern Pacific Railway, has refused the request of the Commercial Club of Walla Walla, Wash., for a lower rate on grain to eastern points, and has written a long letter to the club, stating his position in the matter. He takes the position that the low price of grain is not to be remedied by lower transportation charges, but is the result of the over-supply and that a lower freight rate would simply result in larger profits to the middlemen. This is logic with a vengeance.

The Chicago & Northwestern Railway has opened the following new lines: The Iowa & Minnesota division from Belle Plaine, Ia., to Fox Lake, Minn., 195 miles; an extension of 6 miles of the Iowa division from Kirkman to Harlan, Ia.; the Northern Iowa division from Burt, Ia., to Sanborn, Minn., 93 miles; on Western Iowa division, Denison to Wall Lake, Ia., 25 miles, and Boyer to Mondamin, Ia., 61 miles; on the Minnesota & Dakota division, Sanborn to Vesta, Minn., 26 miles, Tyler, Minn., to Astoria, S. D., 32 miles, and Mankato to New Ulm, Minn., 26 miles.

The Canada Atlantic Railway will make its first shipment of grain to Europe from Quebec, November 1. It will consist of 100,000 bushels of corn, shipped by Counselman & Co. from Chicago to Depot Harbor, transferred there to the Canada Atlantic and taken by rail to Quebec, where it will go into the ocean steamer. The Canada Atlantic expects to handle 11,000,000 bushels of grain by the close of this year. Its trains reach Quebec over the tracks of the new Northern Pacific line from Hawkesbury, a route which makes the distance from Perry Sound to Quebec as short as that between Owen Sound and Montreal. In order the better to take care of its export grain trade a new \$300,000 elevator has been built at Quebec, and a marine tower, capable of unloading a barge at the rate of 12,000 bushels an hour, has been provided.

A remarkable activity in grain shipments by lake from Chicago was noticeable during September. For the week ending September 23 the total shipments from Chicago, including South Chicago, were 6,718,984 bushels. This was carried away by sixty-seven ships. There were 3,387,889 bushels of corn, 1,444,749 bushels of wheat, 1,791,709 bushels of oats and 94,637 bushels of flaxseed. During the following week the shipments were even larger, aggregating 6,771,000 bushels, of which 3,276,000 bushels was corn, 2,185,000 wheat, 1,255,000 oats and 55,000 bushels barley. Buffalo was the port of destination for 75 per cent of the whole. Freight rates, Chicago to Buffalo, were 1½ cents on corn and 1½ cents on wheat, advancing later to 1½ cents and 1½ cents respectively. Boats were plentiful, some carriers taking grain charters for the return trip. This had a tendency to depress rates, and as the rush of

shipments was soon over rates dropped again October 8 to the former basis.

Late Patents

Issued on September 11, 1900.

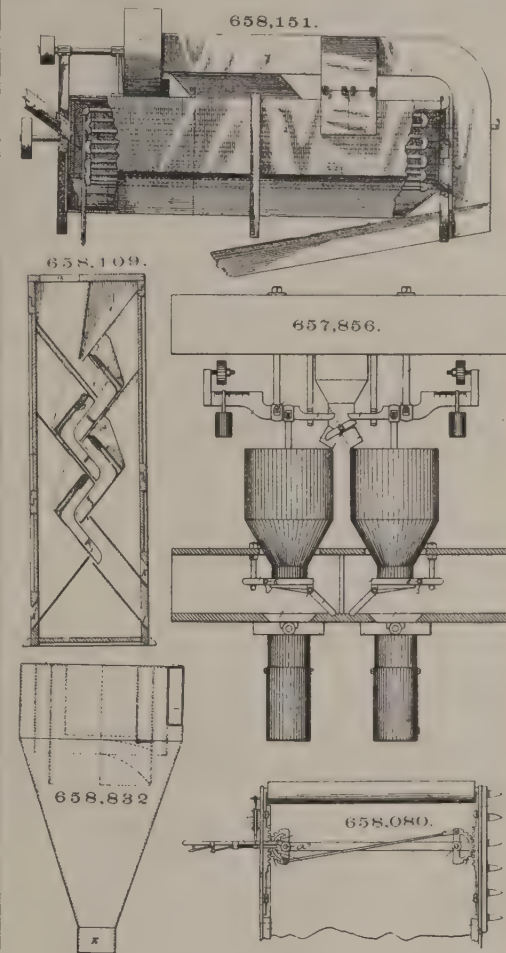
Gas Engine.—Wm. E. Cary, Springfield, Vt. Filed July 8, 1899. No. 657,810.

Gas Engine.—Hinsdale Smith, Springfield, Mass. Filed May 11, 1899. No. 657,576.

Automatic Weighing Machine.—David S. Cook, Sellersburg, Ind. Filed Aug. 10, 1898. No. 657,854. See cut.

Issued on September 18, 1900.

Belt Tightener for Grain Carriers.—Charles Colahan, Akron, Ohio. Filed Feb. 28, 1900. No. 658,080. See cut.



Rear Compression Gas Engine.—George E. Hoyt, San Francisco, Cal. Filed March 9, 1900. No. 657,934.

Gas or Gasoline Engine.—John J. Simmonds, Devon, Kan. Filed March 15, 1900. No. 658,127.

Grain Drier and Cleaner.—Christian H. Larsen, Fowler, Ind. Filed Jan. 27, 1898. No. 658,151. See cut.

Grain Separator.—August Heine, Silver Creek, N. Y., assignor to Lizzie Heine, same place. Filed Nov. 25, 1898. No. 658,109. See cut.

Issued on September 25, 1900.

Explosive Engine.—Elwood Haynes and Elmer Apperson, Kokomo, Ind. Filed July 19, 1897. No. 658,367.

Issued on October 2, 1900.

Bag Holder.—Camilla M. Hirsch, New Ulm, Minn. Filed June 25, 1900. No. 658,848.

Grain Separator.—Nicolaus Heid, Stockerau, Austria-Hungary. Filed June 10, 1899. No. 658,843. See cut.

Dust Collector.—Roger Danvin, Paris, France. Filed March 13, 1899. No. 658,832. See cut.

Gas Engine.—William S. Halsey, Pittsburg, Pa. Filed Feb. 1, 1900. No. 659,027.

Gas Engine.—Lewis H. Nash, South Norwalk, Conn., assignor to the National Meter Co., New York City. Filed Jan. 25, 1897. No. 658,858.

Gasoline Engine.—John M. Olsen, Elkhorn, Wis. Filed Oct. 21, 1898. No. 659,095.

The government has bought 4,000,000 pounds of oats at Minneapolis for use of the army in Manila at \$1.22 to \$1.24½ per hundredweight f. o. b. Portland, Ore., from which city the grain will be shipped on October 20.

PRESS COMMENT

AMERICAN GRAIN IN GERMANY.

The German agrarians are now demanding that a grain tariff shall be arranged in order to shut out the American product. The proposition that the whole German population shall pay dearer for its bread in order to benefit a special industry of fast decreasing importance does not seem to strike the self-sufficient agrarians as at all preposterous.—Hartford (Ct.) Telegram.

THE LAKE TRAFFIC.

All the lake cities are prosperous, and as the country around them becomes more populous they will continue to advance. Were the northern shores of the lakes as thickly populated as the southern, the traffic would be vastly greater than it is, and there is no doubt that that part of Canada will ultimately be settled by people who will contribute enormously to the lake trade.—Denver Republican.

A CASE OF THE SEVERE TYPE OF PEORIA MORALITY.

There is no doubt about the evil of bucket shops just as there can be no dispute as to the evil of poker rooms, faro rooms and all other gambling devices and arrangements. Bucket shops are neither better nor worse than their class and in this class are boards of trade, chambers of commerce and stock exchanges. They are all based upon the desire of the human heart to gamble. While certain practices are not considered respectable it is considered highly so to gamble in grain.—Peoria Star.

PROPOSED FARMERS' COMBINE.

It is obvious the proposed Farmers' American Federation will have great difficulties to overcome before it can be made successful. The present established methods of handling farm products must be almost completely superseded before it can expect to regulate prices. This means that there must be cooperation on the most extensive scale among the farmers of the country. Besides, there must be the most intelligent and honest management of the affairs of the Federation in order to assure good results.—Milwaukee Sentinel.

WILL EUROPE EAT CORN?

After an investigation of the subject (including the Paris Exposition Korn Kitchen), J. S. Crawford writes in the Forum that if the prejudice of Europe is to be overcome the American cereal manufacturers must establish depots abroad where corn products will be sold and where the common people may be made acquainted with the palatable corn dishes and the manner of preparing them. Mr. Crawford is of opinion the disfavor in which corn is held arises out of the very inferior quality of the little maize that is grown in Europe. He is satisfied also that corn imports will be opposed by the wheat growing and milling interests.—Pittsburg Dispatch.

Recent depredations on grain in cars in the yards at Tacoma have caused enormous losses to shippers to that market. The thefts have lately been by wagon loads instead of by the sack, as formerly.

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

POSITION WANTED.

Wanted, position as elevator manager and grain buyer. Have had 12 years' experience as grain and hog buyer. Am married; 33 years old. Can give good references.

H. E. WRIGHT, Hardin, Ohio.

REPRESENTATIVES WANTED.

Millwrights, machinery dealers and manufacturers' agents wanted to represent us in their territory, on commission, for the sale of elevating, conveying and power transmitting machinery, mill and elevator supplies. Address

WELLER MFG. CO., 118 and 120 North Ave., Chicago, Ill.

A POINTER.

If you are looking for a purchaser for your property, better follow the advice given in the letter below and insert an advertisement in these columns:

St. Louis, Mo., Aug. 15, 1900.

Mr. J. C. Wallace, Lebanon, Mo.

Dear Sir:—We are in receipt of your valued favor of the 14th inst. and contents carefully noted. If we, by any possibility, chance to learn of a party that is looking for a good grain opening with elevator attachment, to be had at reasonable figures, we will most certainly recommend your plant very highly. At times there are parties who are changing their locations, and we think it would be good policy to insert a little advertisement that would cost you a trifle, in the "American Elevator and Grain Trade," published monthly in Chicago by Mitchell Bros. Co. We have at times advertised in the paper; it has a wide circulation and we think if you would thus cast your grain on the Chicago waters it might be returned to you in the shape of a purchaser of your elevator. We mail you sample of the publication so you can see what it is like. With kind regards, we remain

Yours very truly,

J. W. BOOTH & SONS COM. CO.

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

OAT CLIPPERS.

For sale, two No. 5 Eureka Oat Clippers, second-hand. Address

OAT CLIPPERS, care Box 10, "American Elevator and Grain Trade," Chicago, Ill.

FOR SALE.

We have a large stock of boilers, engines, steam pumps and pulleys for sale. Write for specifications and prices to

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For sale, new 16-roll brake, with picker attachment, for making fine, medium and coarse upholsterers' tow. Address manufacturers,

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Twenty gasoline engines, Fairbanks-Morse, Otto and other makes, from 2 up to 50 horse power.

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One complete stand of elevators; capacity 1,200 bushels per hour. Cast iron adjustable boot; 112 feet of 13-inch, 4-ply N. Y. Rubber Belt; 12x6 cups 16 inches apart; 42-inch cast head-pulley; 2 3-8-in. shaft; 8-inch turn head. All as good as new. Used one year. Will be sold cheap.

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I will reward any person who will notify me of any such process being used without my knowledge or consent.

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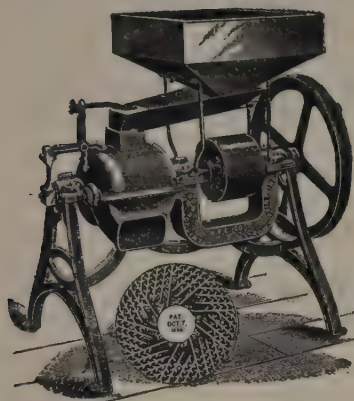
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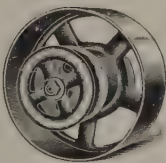
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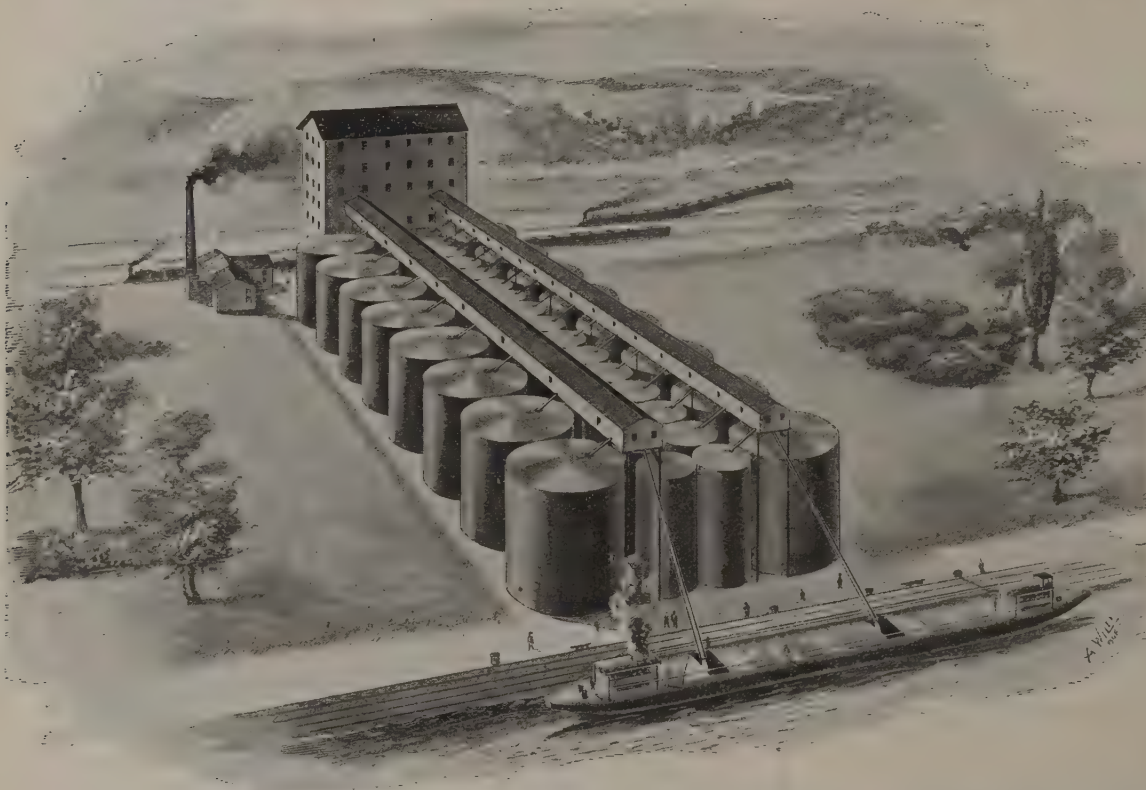
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Cleveland Elevator Company's Elevator, Cleveland, Ohio.	500,000
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Complete Equipments for Elevators and Mills,

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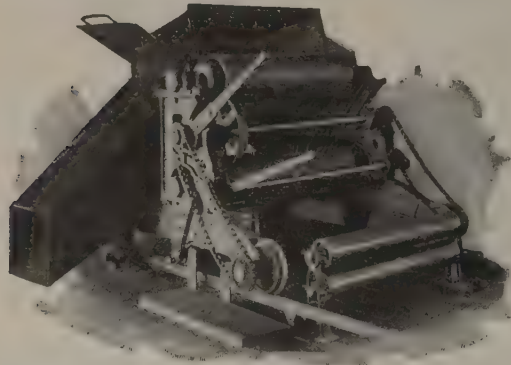
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Furnished on short notice for complete
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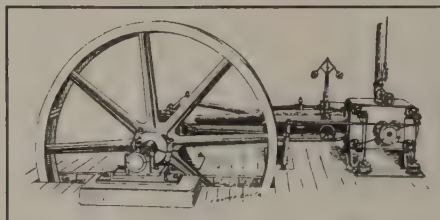
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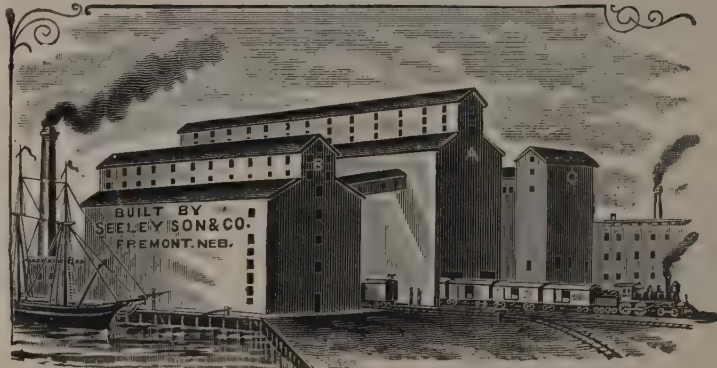
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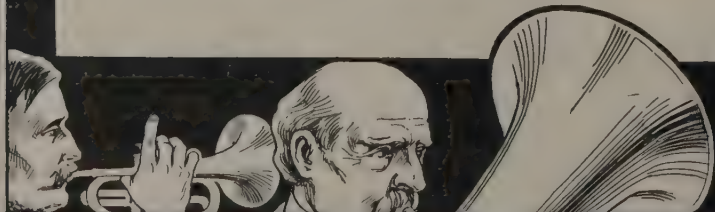
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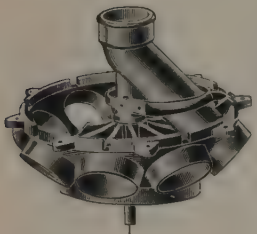
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The Four-Roll Mill may be easily converted into
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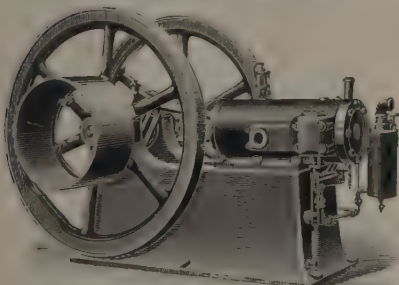
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It is a Mutual Company which insures more mills and grain elevators than any other company in the United States.

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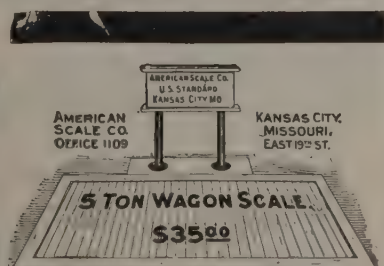
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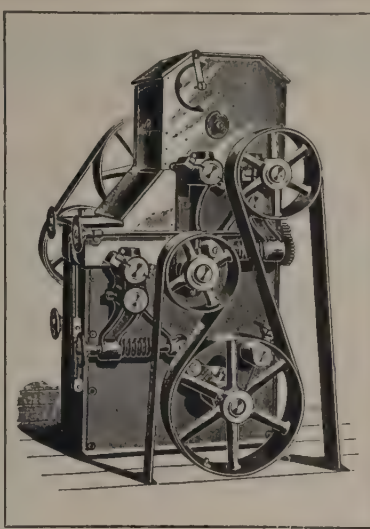
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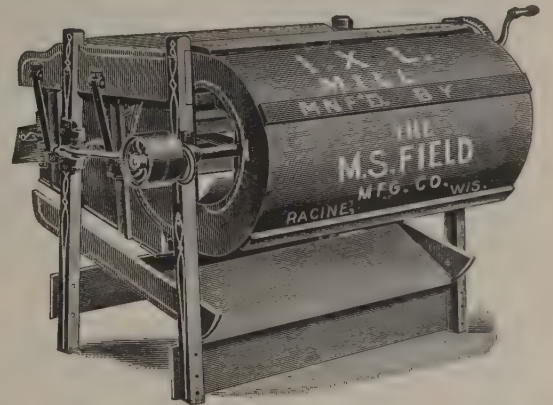
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Good Cleaner with a
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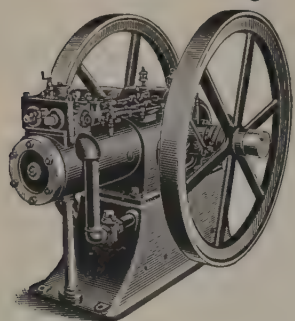
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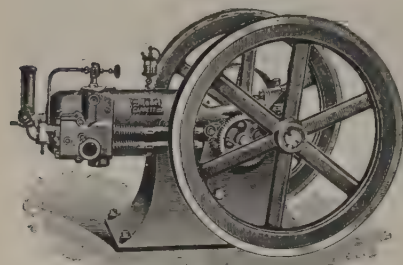
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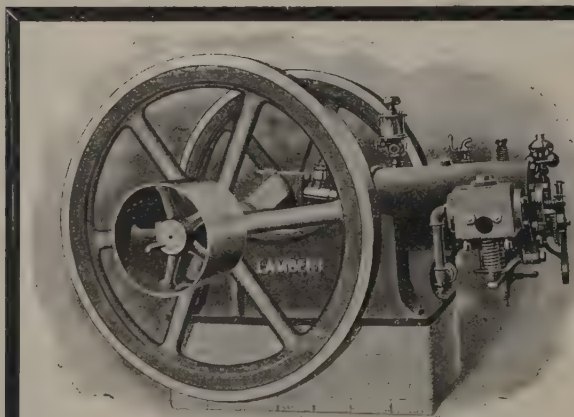
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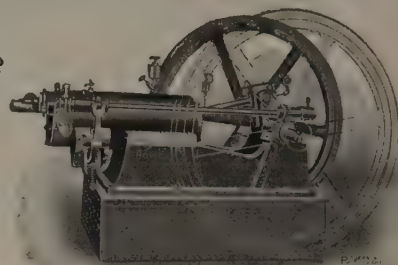
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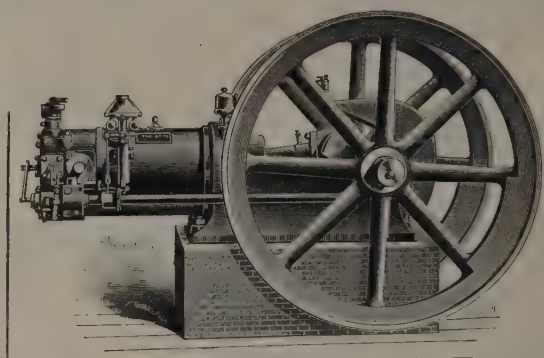
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Perfectly Protects Metal Work of Grain Elevators from Corrosion for Years.

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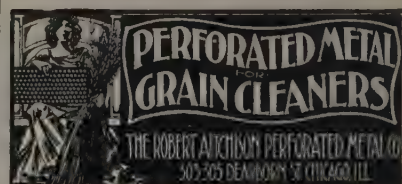
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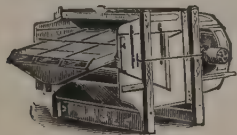
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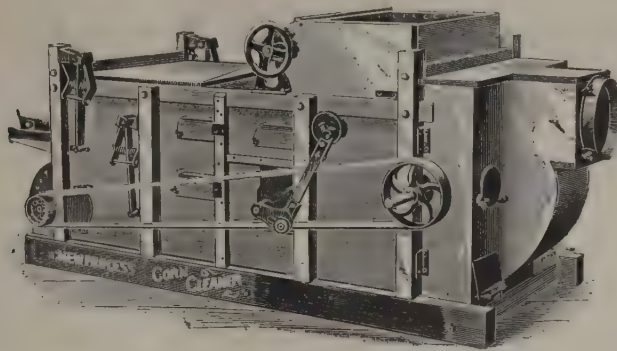


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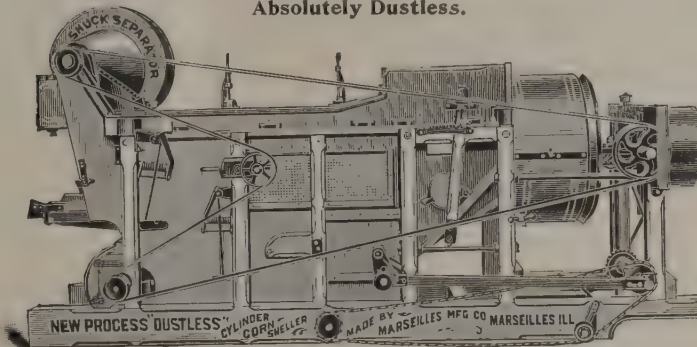
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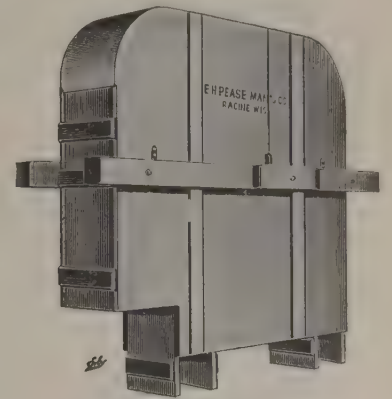
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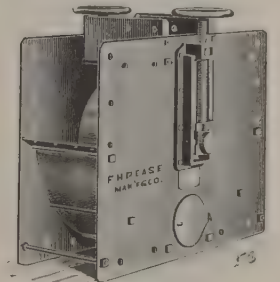
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New Process Corn Shellers and Cleaners, furnished either as
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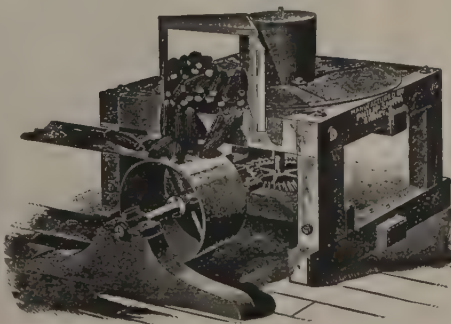
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Which can be operated with ease, safety and speed, and we think that you will find that this dump embodies all the features required, without an objectionable point, and is within the reach of all grain men. This dump can be placed on a level floor, and is so constructed by a double gear that it can be operated by a boy.

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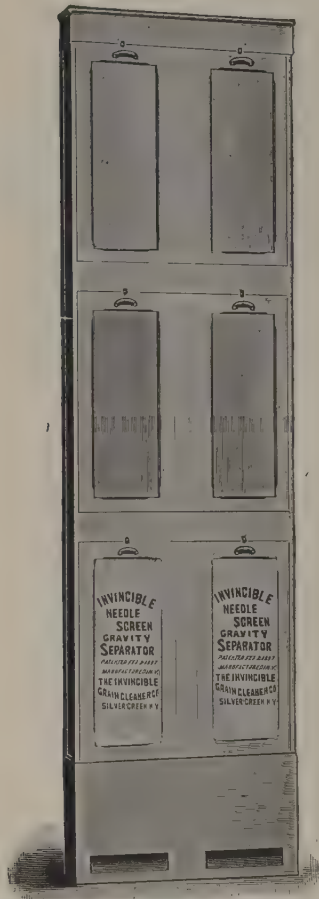
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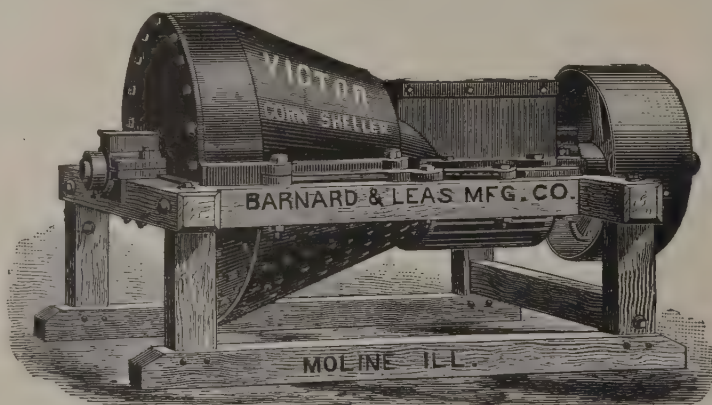
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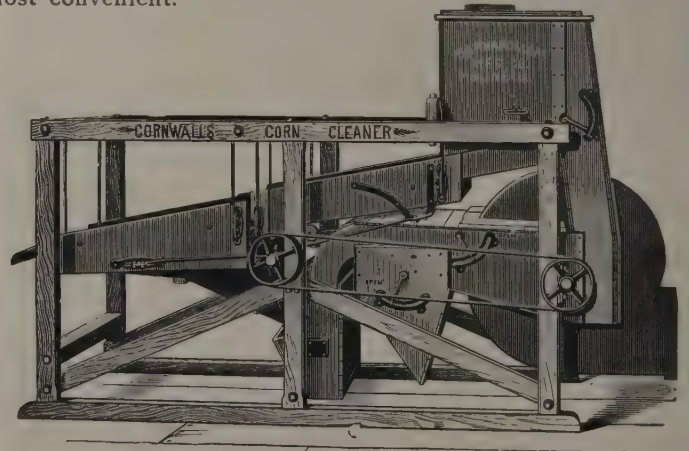
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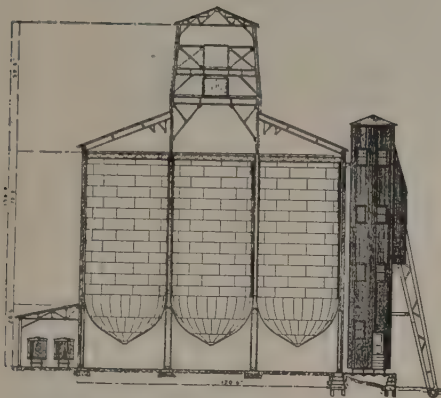
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ALSO

Gas Holders with Steel Tanks.



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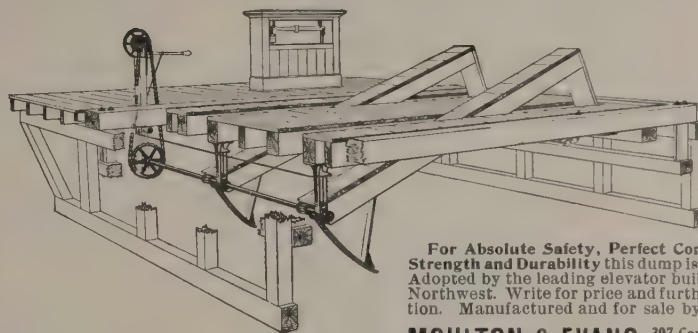
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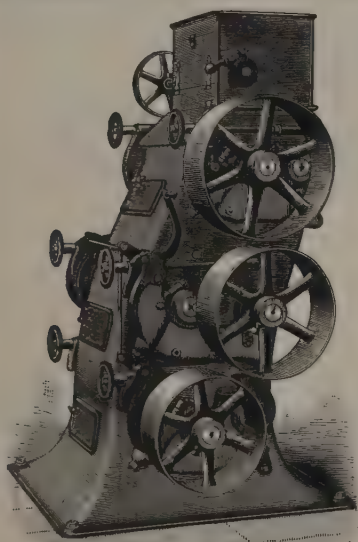
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For Absolute Safety, Perfect Control, Great Strength and Durability this dump is unequalled. Adopted by the leading elevator builders of the Northwest. Write for price and further information. Manufactured and for sale by

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CUSTOM WORK!

UTILIZE YOUR POWER
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THREE-ROLL, TWO-BREAK MILLS, 2 Sizes.

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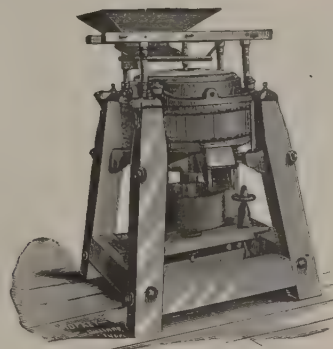
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PORTABLE FRENCH BUHR MILLS,

85 Sizes and Styles.

SEND FOR BOOK ON MILLS.



VERTICAL
UNDER RUNNERS,
UPPER RUNNERS,
PULLEY AND GEAR DRIVES.

ELEVATOR SUPPLIES AND POWER CONNECTIONS.

ROPE DRIVES, GEARING, CORN SHELLERS and CLEANERS, GRAIN CLEANERS.

DUST COLLECTORS (Tubular, Automatic).

CUPS.

We manufacture Elevator Cups for all purposes, and make a greater number of sizes than found in any standard list. Our Cups have greater capacity than others of same rated size; for instance, our $3\frac{1}{2} \times 3$ inch, list price 9c., has as much capacity as others $3\frac{1}{2} \times 3\frac{1}{2}$ inch, list price 10c. Our prices are right

CORRESPONDENCE SOLICITED.

NORDYKE & MARMON CO., INDIANAPOLIS, INDIANA, U. S. A.

FLOURING MILL ENGINEERS, IRON FOUNDERS AND MACHINISTS. ESTABLISHED 1851.

GRAIN ELEVATOR MACHINERY OF LATEST TYPES.



View shows six, and part of the seventh car, in train just leaving the factory of the Dodge Manufacturing Co., Mishawaka, Ind., loaded with shafting, bearings, rope sheaves, ship shovels, winch, marine leg, leg pusher, car puller, belt conveyors, and trippers necessary for use in the new grain elevator of Botsford Jenks Co., Meaford, Canada.

The following Grain Elevators, under construction or in operation, are among those recently equipped:

Illinois Central R. R., New Orleans, La.,	- capacity, 1,200,000 bu.	Electric Steel Elevator, Buffalo,	- - - capacity, 1,200,000 bu.
Northern Grain Co., Manitowoc, Wis.,	- " 1,200,000 "	McReynolds & Co., Hammond, Ind.,	- - " 2,000,000 "
Northern Grain Co., Council Bluffs, Ia.,	- " 750,000 "	Calumet Elevator Co., South Chicago, Ill.,	- " 1,200,000 "
Botsford & Jenks, Meaford, Ont.,	- - " 1,000,000 "	Rosenbaum Bros., South Chicago, Ill.,	- - " 1,000,000 "
Chicago Dock Co., Chicago, Ill.,	- - " 1,000,000 "	Peavey Grain Co., South Chicago, Ill.,	- - " 1,500,000 "
D. H. Stuhr Grain Co., Hammond, Ind.,	- " 600,000 "	Chicago-O'Neill Grain Co., South Chicago, Ill.,	" 750,000 " etc., etc., etc.

Have the Largest Factory in the World Exclusively Devoted to the Manufacture of Power Transmitting Machinery.

THE DODGE MANUFACTURING CO.,

Engineers, Founders, Machinists.

Mishawaka, Ind.

Branches: BOSTON, NEW YORK, CINCINNATI, CHICAGO, ATLANTA, LONDON, ENG.

The most scientific in construction. The most practical in operation.

THE EUREKA IMPROVED OAT CLIPPER.

It outclasses all others, not only in quality but in economy of work.

ARMOUR ELEVATOR CO.,
Room 712, 205 La Salle St.

CHICAGO, Sept. 24, 1900.

Mr. B. F. RYER, General Western Manager, The S. Howes Co., 11 Traders' Bldg., Chicago.

DEAR SIR:—Having given your Improved Eureka Oat Clipper a fair trial at our Minnesota Elevator, we beg to state that the machines are fully up to, even surpass any expectations we had. Your promises and guarantees have been fully carried out.

The machines easily have a capacity of 2,000 bu., and can, if desired, be made to handle 2,400 bu. per hour; and we can say that we would have no hesitancy in recommending the Eureka Clippers.

Yours truly, ARMOUR ELEVATOR CO.

Capacity
from 100 bushels to
2,400 bushels
per hour.

THE IMPROVED EUREKA CLEANERS

Are worthy of close investigation. Write for particulars.

THE S. HOWES CO.,

EUREKA WORKS,

Est. 1856.

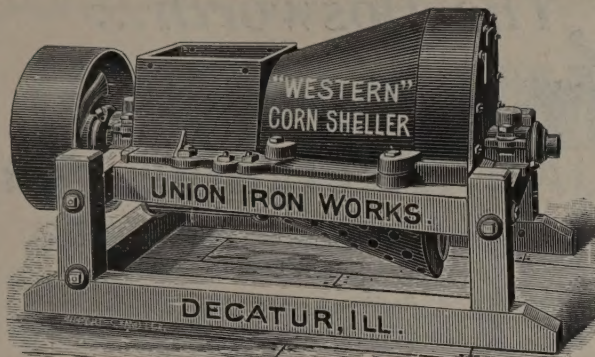
SILVER CREEK, N. Y.

Duplicate parts of all Eureka machines built, from the time of Howes, Babcock & Co. in 1856 until the present.

J. N. HEATER, Baltimore Hotel,
Kansas City, Mo.

B. F. RYER, Gen. Western Mgr., 11 Traders' Bldg., Chicago, Ill.

W. E. SHERER, 5 Chamber of Commerce,
Minneapolis, Minn.



"Western" Warehouse Sheller.

SOLE MANUFACTURERS

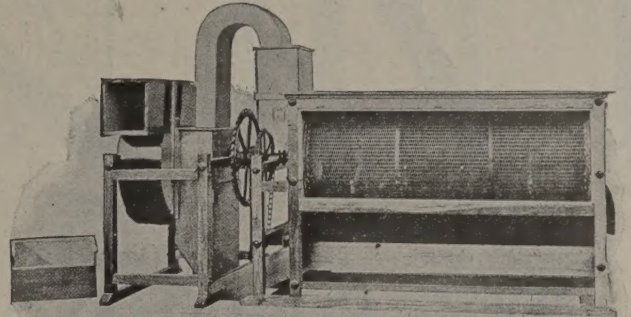
"Western" Shellers and Cleaners, BEST ON EARTH.

Complete Elevator Equipments our Specialty.

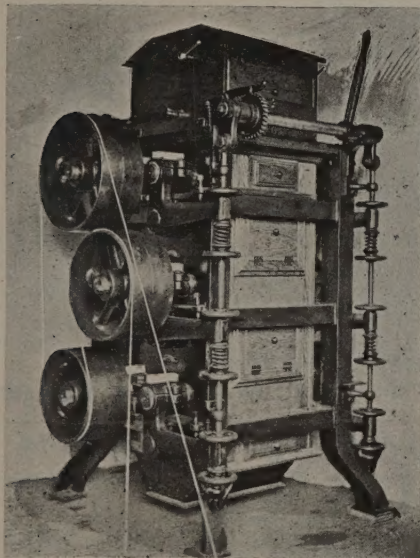
UNION IRON WORKS, DECATUR, ILL., Grain Elevator Contractors and Builders.

Plans for Grain Elevators Made, on application, by licensed architect.

Write for Catalog.



"Western" Warehouse Cleaner.



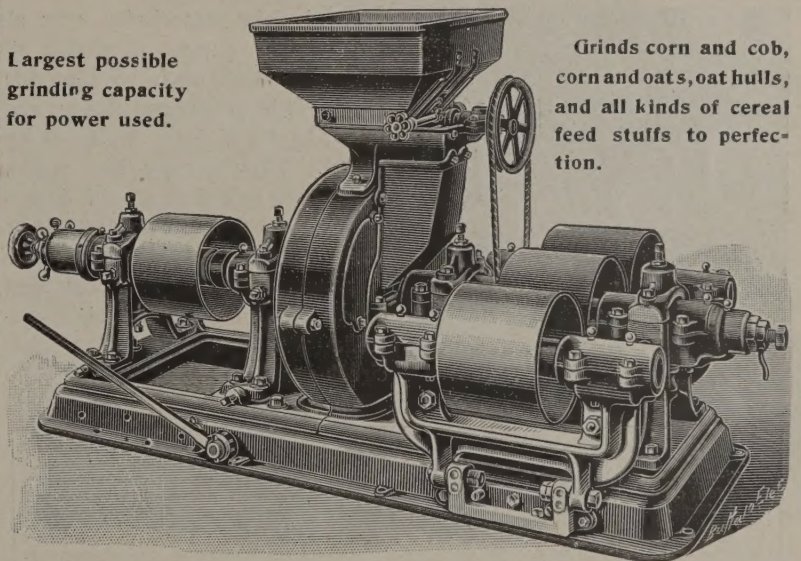
The Minneapolis Four and Six Roll Corn and Feed Mill

Is built with noiseless gears, or belt drive for slow rolls, if so desired. It is easy to handle; a boy can run it. Lever can be used for fine or coarse grinding, or each pair of rolls can be adjusted independent of lever movement. Rolls cannot get out of parallel line, therefore does better work, grinds more and lasts longer. Mill has shake feeder and steel separator combined. Will be sold on 30 days' trial. Send for circular to

FRED ZOLLNER & CO., 2435 Twenty-Eighth Ave. S., Minneapolis, Minn.

FEED GRINDING PAYS, *Especially if you do it on a* MONARCH ATTRITION MILL.

Largest possible
grinding capacity
for power used.



Grinds corn and cob,
corn and oats, oat hulls,
and all kinds of cereal
feed stuffs to perfec-
tion.

Requires Less Than One Minute to Open It.

This Monarch of the Grinding World

Will attract customers for you and place you beyond competition in the matter of capacity and expense. No burr stones to be re-dressed. Ball-bearings and self-oiling boxes reduce power, wear and attention required to the minimum. No twist belts necessary with our special drive, which reduces cost of installing.

We build a complete line of Attrition and Burr Mills. You can't ask us too many questions about them. Send for catalog.

SPROUT, WALDRON & CO., Muncy, Pa.

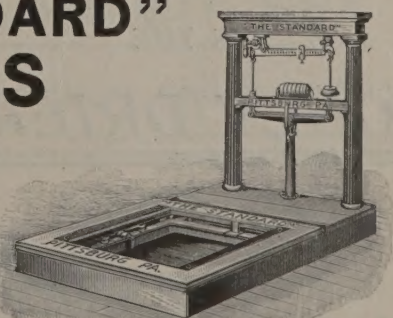
"THE STANDARD" SCALES

—FOR—

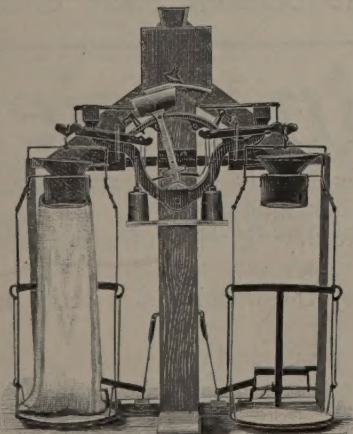
Grain Elevators, Flour Mills,
AND ALL PURPOSES.

Recent Contracts:
Great Northern Ry. Elevator, eighteen
1,600 bu. Hopper Scales.
Baltimore & Ohio Ry. Elevator, ten
1,400 bu. Hopper Scales.

THE
Standard Scale & Supply Co.,
LIMITED,
Manufacturers, PITTSBURGH, PA.



Cutler Bagging Scale



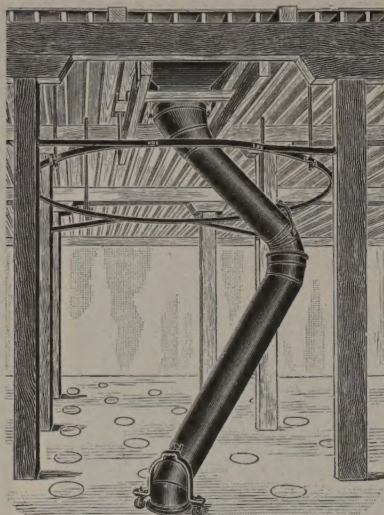
For weighing Grain, Meal,
etc., Automatically, in even
weight packages.

Two Scales in One Frame

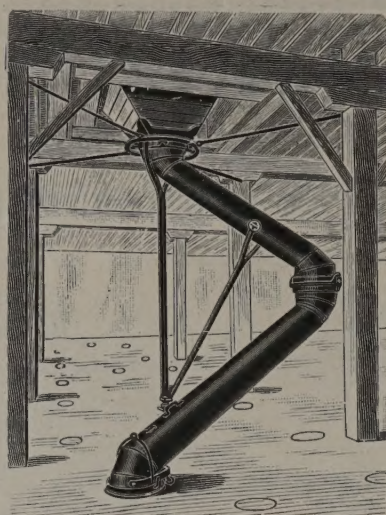
Operated by one man. Ac-
curate, economical

Not an experiment. In suc-
cessful use 10 years.

THE CUTLER CO., North Wilbraham, Mass.



TROLLEY SPOUT.

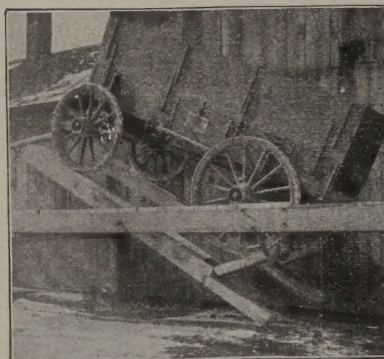


STANDARD SPOUT.

D. A. ROBINSON'S Universal Distributing Spouts,

755-765 TEMPLE COURT, MINNEAPOLIS, MINN.

The Adjustable Elevator Dump.



LOW-WHEEL WAGON ON DUMP.

WE claim superiority over all other dumps in giving all wagons enough pitch so that the grain will leave the bed freely, and in letting them down in the dump easily. They occupy less space, and can be placed on all sill dumps now in use without changing trip or pins that sills are hung with. To responsible firms they will be sent on 30 days' time, with freight prepaid. Write us for descriptive circular and price list.

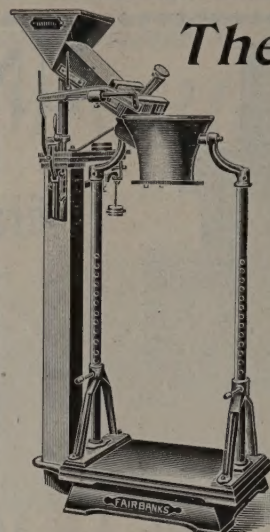
SIMS BROS., Paris, Ill.

GENTLEMEN:—I have had one of your wagon dumps in my elevator for about 30 days; I have four dumps in elevator. Put your patent on the hardest working dump that we had, and must say that it works to perfection. It is easy on the wagon as it goes down and is easy to pull out. Before putting in patent dump the farmers would always say don't put me on that hard dump. Now they say let me dump on the patent dump. It is a great favorite with the man that does the dumping. Would highly recommend it to all elevator men. It gives wagons more pitch so that grain runs out easier, and is a first-class dump in all respects.

Yours truly, H. A. CLEVENGER.

Bondville, Ill., July 3, 1900

SIMS BROS., MANUFACTURERS AND PATENTEES, PARIS, ILL.



The Bosworth... Automatic Weighing Scale

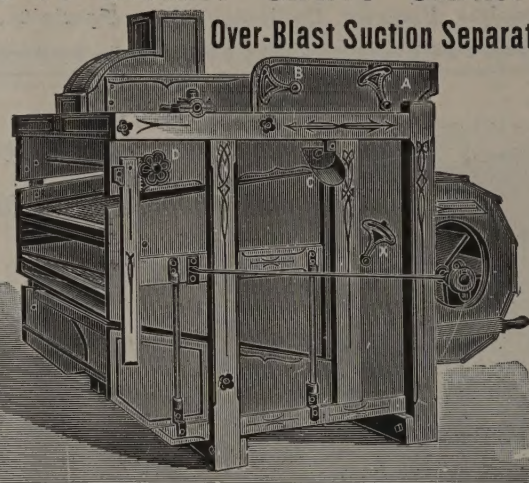
FOR WEIGHING AND BAGGING
ALL KINDS OF GRAIN.

Rapid work. Saves time.
Accurate weight. Best investment that can be made.

Write for Circular and Prices.

Munson Bros. Co.,
UTICA, N. Y.

THE CELEBRATED A. P. DICKEY GIANT GRAIN CLEANERS.



Over-Blast Suction Separator.

THE
STANDARD
IN THEIR
LINE.

"Grain
Cleaned
to a
Standstill."

Manufactured in any desired size and pattern, with capacities to accommodate the largest Elevator and Flouring Mills, or small Warehouses for hand use. Single and Double, End and Side Shake, and Dustless Separators, both Under and Over Blast.

Address..... DICKEY MFG. CO., RACINE, WIS.

BRAIN TOOLS

Save time and hard work and insure accurate results.

THE GRAINMAN'S ACTUARY

Shows at a glance the cost of bushels and fractional parts of bushels for any amount up to 50,000 bushels. Contains 214 well printed and well bound pages. Sent postpaid on receipt of price, \$1.00.

No miller or grain dealer can afford to be without it. Address

MITCHELL BROS. CO., 315 Dearborn Street, Chicago.

The...Hess Pneumatic Grain Drier

IS THE

ONLY DRIER

P. S.—No wire netting nor perforated metal used in the HESS.

1. In which the grain is all in sight and "get-at-able" while drying and cooling.
2. In which drying and cooling are simultaneous and continuous.
3. In which the grain may be mixed and stirred while drying without using power, by simply throwing a lever.
4. Which can be emptied and filled in sixty seconds by the watch and without stopping the blower.
5. In which the heat given off by the cooling grain is saved and utilized.
6. In which all parts are removable and interchangeable, a small wrench only being necessary.
7. Which has been officially approved by the Chicago Underwriters' Association and by the Underwriters' Bureau of Fire Protection Engineering.
8. Which is used by the largest grain interests in the world.

Hess Warming and Ventilating Co., 708 Tacoma Building, Chicago.

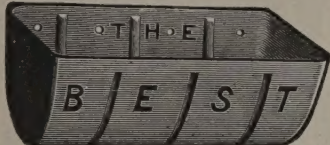
Conveying, Elevating and Power-Transmitting Machinery

H. W. CALDWELL & SON CO.

GENERAL MACHINISTS,

Western Avenue, 17th to 18th Streets, Chicago, Ill.

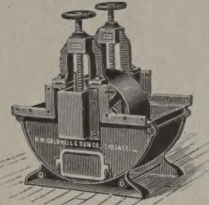
—CALDWELL HELICOID CONVEYOR—

Specialties for
Grain Elevators and Mills.THE ONLY PERFECT SPIRAL
CONVEYOR; with Flight of One
Continuous Strip of Metal.CALDWELL CORRUGATED SEAMLESS
STEEL ELEVATOR BUCKETS.

LINK BELTING.
SPROCKET WHEELS.
COTTON BELTING.
RUBBER BELTING.
LEATHER BELTING.
BELT CLAMPS.
POWER GRAIN SHOVELS.
ELEVATOR BOLTS.
ELEVATOR BUCKETS.
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FRICTION CLUTCHES.
JAW CLUTCHES.
COUPLINGS.
FLEXIBLE SPOUTS.
GEARING (all kinds).
GRAIN SCOOPS.
ELEVATOR BOOTS.
COGSWELL MILLS.
HANGERS.
PERFORATED METALS.

PILLOW BLOCKS.
IRON PULLEYS.
WOOD PULLEYS.
SHAFTING.
SET COLLARS.
SWIVEL SPOUTS.
TAKE-UP BOXES.
TURN HEAD SPOUTS.
WIRE CLOTH.

Elevator
Boot.

EASY TO HANDLE

*Willford's Light-running
Three-roller Mills*

Are not only easy to handle, but grind the most feed for power consumed of any feed grinder made. Send for circulars and prices.

Willford Manufacturing Co., 303 So. Third St., MINNEAPOLIS, MINN.

—LOAD YOUR CARS WITH—

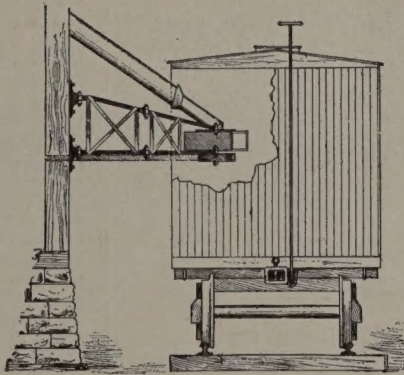
THE IDEAL AUTOMATIC CAR LOADER.

The best and most practical machine in the market for loading all small grain. We guarantee it to do its work satisfactorily.

WHAT IT WILL DO:

Loads both ends of car at same time.
Loads a car in twenty minutes.
Saves you its cost in 60 days. Scours and brightens the grain.
Cools grain that is beginning to heat.
Loads more grain in car than can be done by a man with a scoop.
Owing to its peculiar and novel construction it will not crack the grain.
It is impossible to have a choke-up.
Made of iron and steel, it is durable and easy to handle.

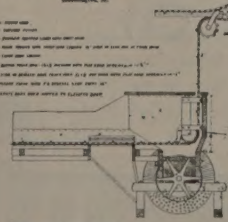
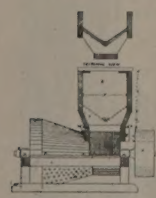
MADE IN TWO SIZES.
SPECIAL SIZES MADE TO ORDER.



WRITE FOR FULL PARTICULARS, PRICES AND TERMS TO **G. W. DOOLEY & CO., BLOOMINGTON, ILL.**

THE B. S. CONSTANT SHELLER FEEDER,

STYLE C-1, USING B2 TIGHTENER. A MONEY SAVER IN EVERY ELEVATOR.

B. S. CONSTANT CO.
Bloomington, Ill.

Latest Improved Grain Separators.
Water-tight Boots, Steel Tanks,
Dust Collectors, Wagon Dumps,
Elevator Boot and Sheller Feeders.

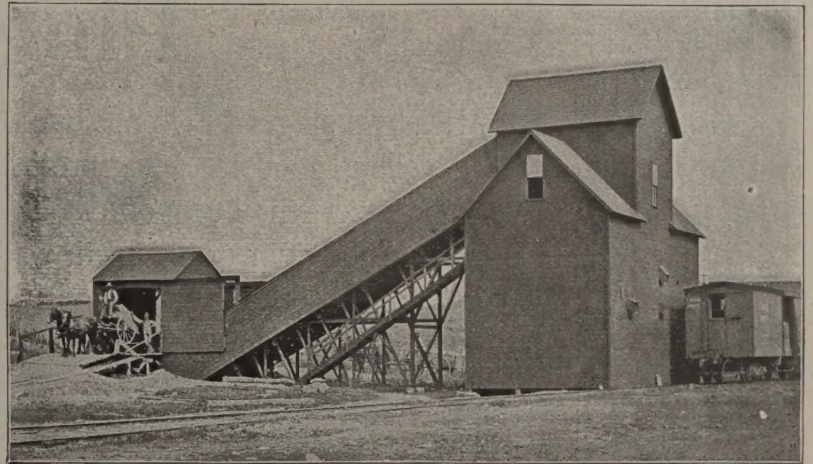
..WRITE..

B. S. CONSTANT CO.,
BLOOMINGTON, ILL.,

Designers of Grain Elevators and Manufacturers of Grain Cleaning and Elevator Machinery.

THE INCLINE ELEVATOR and DUMP

SOLVES THE PROBLEM OF CRIBBING EAR
CORN WITHOUT SHOVELING.



It attracts the most profitable part of the grain business. The Ventilated and Combination Grain Bin is excellent ear corn storage, is rat proof and a tight bin for anything. It requires only 1/4 foot of lumber per bushel of storage. The reduction in cost of storage compared with even a common, temporary ear corn crib will pay for the Incline Elevator and Dump to fill it.

Dealers having belt elevators would profit by adding our ear corn, oats, wheat, etc., storing facilities. Extensive farmers and feeders would also find improvement and profit by adopting it. Each team elevates the load it brings. Power is always ready and costs you nothing. Will elevate 20 or more of the largest loads per hour.

Our Plan for Dealers' Complete Elevator Plants. Less than one-half the investment and one-third the expense of operating an ordinary elevator. Unexcelled for speed, convenience and economy of handling shelled grain and also ear corn for shelling or cribbing purposes. It successfully competes with belt elevators. Plenty of capacity is provided in the hopper bottom shipping bins (which are of the right height to spout direct into cars) for grain purchased for shipment, while ear corn, oats, wheat, etc., are stored in the combination bin below.

\$3,500 will complete a 100,000-bushel plant having twenty 1,000-bushel shipping bins, chute direct from top of building and a number of combination bins with total capacity of 800,000 bushels of small grain or 40,000 bushels of ear corn. Gravity or power cleaners, conveyors, sheller, engine, etc., may be added.

The Incline Elevator and Dump and plan of building have been greatly improved and are covered by U. S. patents. Write for prices and catalog. Come and see.

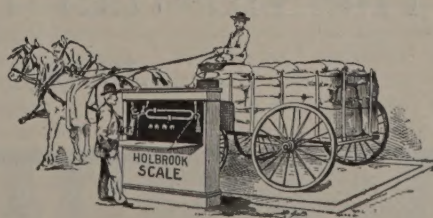
H. KURTZ & SON, SAC CITY, IOWA.

Grain Elevator Machinery and Supplies.

Wagon, Hopper, Portable and
Dump Scales.

Gas and Gasoline Engines of all sizes.
Carry full stocks and can furnish you
complete elevator equipment on short
notice.

C. D. Holbrook & Co.,
305-307 Third St. S. Minneapolis, Minn.





Plug It Up

WHEN we all get to Utopia, one of the first things we'll see is, the merchants selling goods at a big profit and having no expenses—at least so the poet says. Expense—the bugaboo of business. Cut down expense—it eats up profits, it knocks at the door of sleep—it walks arm in arm with bankruptcy. Repair is generally one of the biggest knotholes in your money-drawer. This wants a new screen—that a new pulley-wheel—and the other a new crank, and so on—until you begin to wonder if there can be a bit of the original machine left. How soon did you commence to drop profits into that knothole? Good machinery don't need repairing until late in life. The other sort soon commence to groan and moan over worn-out parts. Some Monitor types have been in constant use for ten, twelve and longer years, and they have not commenced to even "grunt."

Wouldn't it be well to plug that knothole—repairs—into which you have been dropping per cent profits, with Monitor machinery? Let us talk to you about it—to-day is better than too late.

SOME MONITOR MACHINES.

Monitor Adjustable Scourer.
 Monitor Double Scourer.
 Cranson Improved Scourer.
 Cranson Double Scourer.
 Monitor Receiving Separator.
 Monitor Milling Separator.
 Monitor Flour Packer.
 Monitor Warehouse Separator.
 Monitor Oat Clipper.
 Monitor Warehouse Smutter.
 Monitor Corn Cleaner.
 Monitor Corn Scourer.
 Diamond Corn Sheller.
 Diamond Dustless Corn Sheller.
 Silver Creek Hominy Aspirator.
 Monitor Dustless Aspirator.
 Monitor Flax Cleaner.
 Monitor Barley Separator.
 Monitor Barley Scourer.
 Cranson Buckwheat Scourer.
 Cranson Roller Buckwheat Shucker.
 Monitor Scalping and Receiving Shoe.

THE HUNTLEY MANUFACTURING CO.,

SILVER CREEK, N. Y.